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No. I.

The Honorary Medical Staff

OF THE

Manchester Infirmary.

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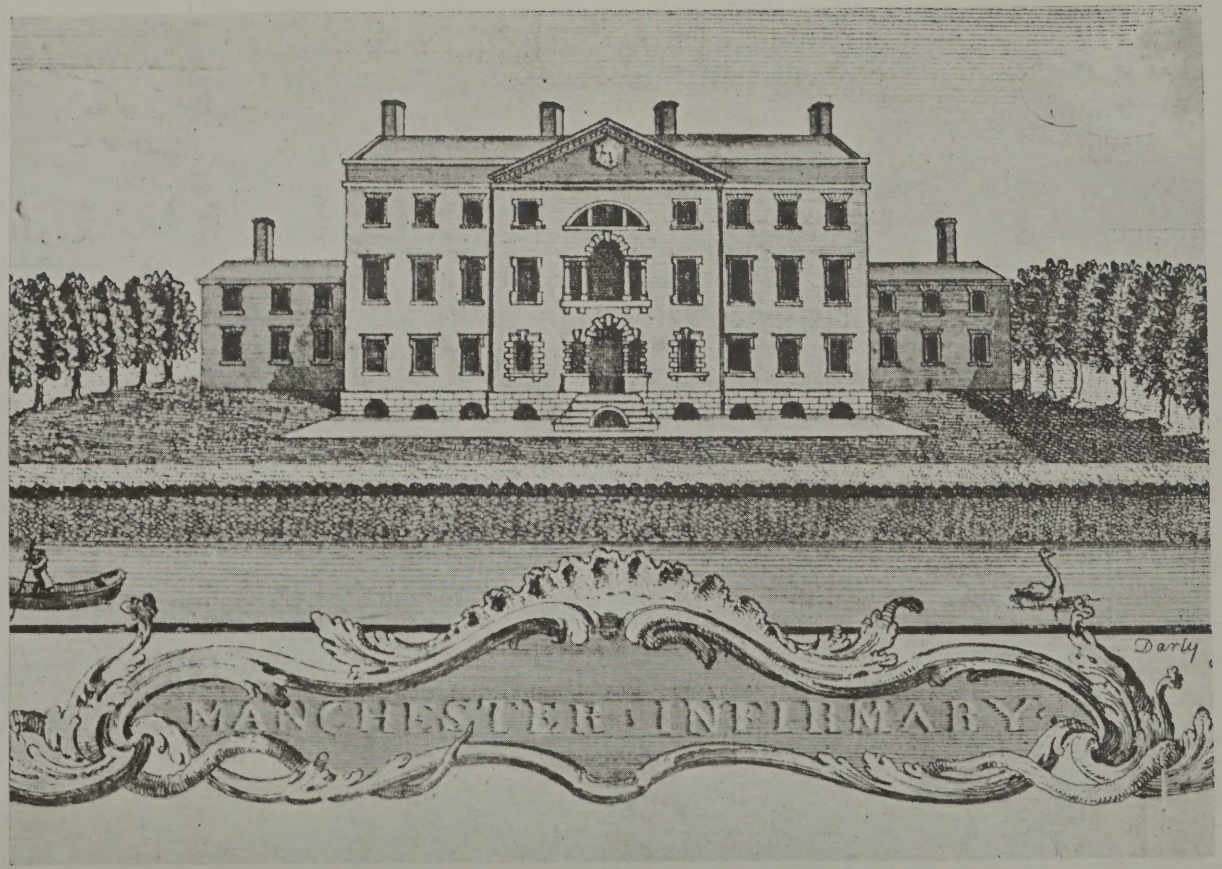

THE INFIRMARY IN 1756.

Sketches

OF THE LIVES AND WORK OF THE

Honorary Medical Staff

OF THE

Manchester Infirmary

From its foundation in 1752 to 1830,
when it became the Royal Infirmary.

BY
EDWARD MANSFIELD BROCKBANK
M.D., M.R.C.P.

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UNIVERSITY OF MANCHESTER PUBLICATIONS
No. I.

THESE TO THEIR MEMORY.

PREFACE.

THIS work began with the preparation of a short paper on the early teaching of medical students in Manchester, and with no thought of book-making. Interest in the subject, however, widened my enquiries, and led to the collection of notes which I now publish at the request of many friends.

The present time, when the removal of the Royal Infirmary from its Piccadilly site, where it has existed for close on 150 years, is about to take place, certainly seems appropriate for giving a collected account of the lives and work of some of the Physicians and Surgeons who were on the Honorary Medical Staff of the Hospital. The period of the Hospital's existence from its foundation in 1752 to the time when it received the Royal patronage, and became the Royal Infirmary in 1830, has been chosen because information concerning the medical men who lived in it is very scattered, and difficult of access, whereas fairly complete biographies of those members of the staff appointed to the Infirmary after 1830, who are no longer alive, are to be found in the medical and lay papers.

No one knows better than I do, how scrappy many of the notes are, but, as I have found in the preparation of this book that a few facts are better than none, I have no hesitation in offering all that I know for the benefit of others who may do better work. I have given very full references in the text to my sources of information, but should like to acknowledge here, how useful I found Dr. Renaud's Short History of the Manchester Royal Infirmary in my work. Its most interesting account of the rise and progress of the hospital, taken from the official minute books, can be read by all with great pleasure.

Since this work went to press Dr. Cullingworth's address on Charles White has been published, with additions, in book

form. The memoir is a fitting tribute to a worthy man, and by far the best account of Charles White that has ever appeared. It goes more fully into the scientific value of White's work than this book does, and no one reading it can fail to be impressed with the important position White occupies in the history of medicine.

I have received information from many people in the collection of these notes, as the pages of the book show. There are, however, two gentlemen to whom I am specially indebted. Mr. Ernest Axon, of the Reference Library, has, from his extensive knowledge of the families of the district, given me valuable advice as to the likely books in which to find notes about some of the Doctors, and I have pleasure in thanking him here for his help. I am also extremely grateful to Mr C. W. Sutton, M.A., the City Librarian. He has taken a most encouraging interest in my work, and has been most anxious to help me whenever he could, and this, with his unique knowledge of local history, has not been seldom. Moreover his patience went so far as to read and criticise the work, to its great advantage, as it passed through the press.

I have much pleasure, finally, in thanking the Board of Management of the Royal Infirmary, the Committee of St. Mary's Hospital, the Council of the Manchester Literary and Philosophical Society, the Feoffees of Chetham's Hospital, Colonel Frank Henry, Miss Ransome, W. A. Winstanley, Esq., J.P., George Lyon, Esq., Miss Boutflower, Mr. Walter Whitehead, The City Librarian, and Dr. Harris for their kindness in allowing me to reproduce those portraits or views of the Infirmary in their possession which are particularised in the table of illustrations.

MANCHESTER, E. M. B.

March 3rd, 1904.

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THOMAS WHITE, L.R.C.P.

Surgeon Extraordinary to the Infirmary, 1752 to 1776.

Dr. Thomas White was the father of Charles White. He was born in 1696. From the family Bible of the Whites we learn that Thomas White's father, also called Thomas, was an attorney in Manchester; he died in 1702. He was the son of Charles White, Esq., of Benall Abbey, Griesley, Nottinghamshire, who was M.P. for the county, and colonel of a regiment under the King in the grand rebellion, when he lost his estate.

White was appointed Surgeon Extraordinary to the Infirmary, on its foundation in 1752.

In practice he devoted special attention to surgery and midwifery, and had considerable reputation for his knowledge and skill.

His name occurs in the Roll of the Royal College of Physicians as having been made an extra licentiate in 1733.

The entry of this in the Annals of the College is as follows :—

Mr. WHITE, EXTRA LICENTIATE.

Comitiis Electorum, 25th July, 1733.

Present: Sir Hans Sloane, *Præses*; Dr. Robinson, Dr. Hawys, Dr. Plumptre, *Elects*.

"Mr. Thomas White, of Manchester, in the County Palatine "of Lancaster, was examined as an Extra-Licentiate, and approved. "He had letters, testimonials, signed and sealed by the President "and Elects above-named at the same time."

He married Rosamond Bower—a member of a well-known Manchester family, her brother Jeremy being a hatter in a considerable line of business.

He lived for a time (1773 Directory) at 54, King Street, and during the latter part of his life at the Priory, Sale, where he died July 20th, 1776, aged 80. In the grounds of the estate his son erected a monument to his memory. It was at the end of a picturesque grove of trees, overlooking the valley of the Mersey towards Stretford. It still exists in a dilapidated condition as a pillar of red sandstone, about 12 feet high, and faces the direction of Dr. White's bridge over the canal. The following inscription was cut on it :—

"To the memory of Dr. Thomas White, who, after acquiring prominence in his profession, retired from its honours and emoluments, to enjoy in rural

tranquility the pursuits of knowledge. Serene and cheerful through the declining periods of life, he attained the eighty-first year of his age with faculties unimpaired, and died July 20, 1776. The grove which he planted and reared is now in its maturity. Consecrated to his revered name by his only Son, Charles White, who erected this monument A.D. 1790."

White's Bridge, that is the bridge over the Altrincham Railway, at Dane Road, Sale, was so-called because it was close to the Priory where Dr. White lived.

Dr. Thomas White had only one son, Charles White, and two daughters, Sarah and Elizabeth, the latter of whom died in early childhood.

He is buried in Ashton-on-Mersey Church.

Five papers by Dr. White remain, and show him to have been an unusually able and enlightened medical man for the time in which he lived.

In a passage in Charles White's work on the management of pregnant and lying-in women, we are told that many of the innovations which he introduced in the treatment of these cases were founded on facts derived from his father's experience of more than fifty years, as well as upon his own. From this it is not unfair to assume that Thomas

White, if he had not already adopted much of the routine method by which Charles White did so much to lessen the sufferings of child-bearing, probably suggested the principles of it to his son.

There is a small pen and ink outline sketch without much character of Thomas White in Gregson's "Fragments of Lancashire."

REFERENCES.

Palatine Note Book, ii., p. 273; Cullingworth's Charles White; Manchester Directory; City News Notes and Queries, No. 24; Centenary of Science, Angus Smith; Charles White's Writings; Munk's Roll of Roy. Coll. Phys.; Owen MSS.; Ormerod's Cheshire, Second Edition; Renaud's Short History of the Manchester Royal Infirmary.

RICHARD EDWARD HALL.

Surgeon Extraordinary to the Infirmary, 1752 to 1793.

RICHARD EDWARD, a son of Edward Hall, of Cranage, was born October 11th, 1703, at Warmington. There is very little recorded of his professional career, but we are told that he studied physick and surgery under Dr. Clayton, of Manchester, and began to practice in the town. "By his great skill and amiable qualities he soon obtained a very extensive business in his own and several neighbouring counties. He died after a life of the most unsullied honour and reputation."

He lived at one time in a "post and petrel," or black-and-white house in Deansgate, at the corner of Bridge Street.

Towards the end of his life he moved to a country house, or farm, at Moss Side, where the Whalley Hotel at Brooks' Bar now stands, which came to him, with his wife Grace Wall, who was a daughter of the Rev. John Wall, Vicar of Rostherne.

He died September 13th, 1793, aged 90, and was buried in the Collegiate Church, between the

chantry and the north aisle of the choir. I have found no medical works of his.

Like many other of the gentry of Manchester, Richard Edward Hall was a Jacobite, and is said to have entertained the young Pretender when the rebels were in the town in 1745, and also during Prince Charles Edward's mythical visit of the previous year. The story goes that the young Pretender stayed for some weeks, in disguise, at Ancoats Hall, the home of the Mosleys, so that he could watch events in London and be ready to strike his blow as soon as occasion offered. The Stuart papers do not yield any evidence to shew that the 1744 visit was really paid, and the whole story is dependent on the statement of a servant girl, who said she recognised the Prince when entering Manchester at the head of his men, as being the same gentleman who had stayed the previous year at Ancoats Hall. But though Hall was a Jacobite at heart, he was not prepared to risk life or property in support of a cause which he, with many others of his way of thinking, saw to be hopeless, and no mention of him occurs in the diaries or records of the time as actively supporting the "King over the water." In Miss Elizabeth (or "Beppy") Byrom's interesting and

detailed journal of the occurrences in Manchester during the few days' occupation by the Jacobites, in November, 1745, there is no mention of Hall's name, not even amongst those who kissed hands when the Prince was staying at Mr. Dickenson's house in Market Sted Lane (our present Market Street). The only time he appears in this diary is in a later note saying that "Dr. Hall heard on Wednesday, January 22, 1746, that General Hawley had been defeated by rebels."

Hall probably confined his Jacobite feelings to the harmless custom then very widely adopted, when drinking the health of the King, of passing the wine glass over the water bottle—"The King"—over the water.

One of John Byrom's *jeux d'esprit* was inspired by Hall's paying his addresses to Grace Wall, of Rostherne, his future wife.

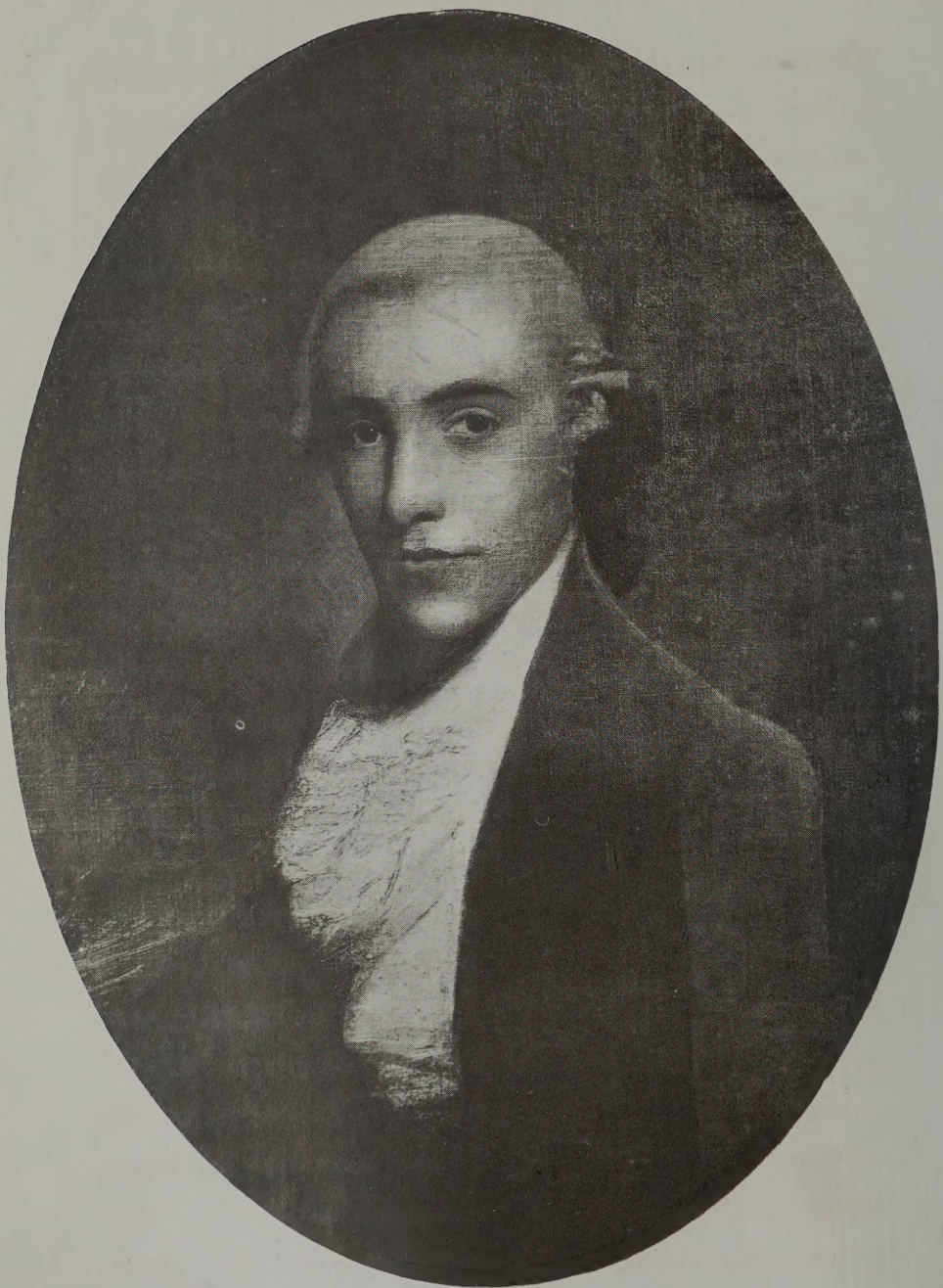
> A lady's love is like a candle snuff,
> That's quite extinguished by a gentle puff.
> But with a hearty blast or two, the dame,
> Just like a candle bursts into a flame.

Hall was one of the original members of the Literary and Philosophical Society, but read no papers before it.

Richard Edward Hall had two sons, Edward and Richard (q.v.), who were surgeons on the Infirmary staff, and several daughters.

These daughters were ardent admirers of Bonnie Prince Charlie, and when the last of them, Frances, died, an old maid, in 1828, amongst her possessions were several Stuart relics, and a drawer full of the remains of white roses which had been given to her on various Jacobite anniversaries.

Mr. Andrew Boutflower tells me that his father used to know Miss Frances Hall, and also her sister, Miss Elizabeth Hall, who died, aged 86, in 1826, and that the latter was fond of relating how she and her younger sister Frances went to see the Prince when he was at Mr. Dickenson's "Palace", in Market Street, in 1745, and that the Prince sat them one on each of his knees. Hall Ward in the Royal Infirmary is named after this family, and there is a mural tablet to commemorate the legacy of £11,000, which was left by Miss Frances Hall, in 1828.



EDWARD HALL.

EDWARD HALL.

Honorary Surgeon to the Infirmary, 1752 to 1790.

EDWARD HALL, the eldest son of Richard Edward Hall, was born about 1731. He learnt his profession at home, being apprenticed to his father.

He was one of the three original surgeons appointed to the Infirmary at its foundation in 1752. He remained on the staff until 1790, when with all his colleagues he resigned as a protest against the decision of the Trustees to add to the number of the honorary surgeons and physicians, a decision which the staff looked upon as not only unnecessary but as conveying the implication of neglect or inability on their part.

In 1790 he helped Charles White and his brother Richard to found the Manchester and Salford Lying-in Hospital and Charity, now St. Mary's Hospital, and was appointed man-midwife extraordinary to it.

He was one of the original members of the Literary and Philosophical Society, but read no papers before it.

He died (unmarried) on September 25th, 1791,

aged 60, and was buried in the family grave in the Collegiate Church.

On his death it was written of Edward Hall: "As an expert and successful operator few surgeons "have exceeded him. Courteous in his manners, "cheerful and engaging as a companion, sincere and "valuable as a friend, society in him lost a most "excellent member."

Edward Hall, like his father, was a Jacobite, but too young to give active expression to his sympathies and get into mischief as many young fellows did, by joining the Manchester Regiment, raised to support the young Pretender in 1745. At this date he would be only about thirteen or fourteen, and we read nothing of him in the records of the time.

It was not until the beginning of last century that it became known in Manchester that Edward Hall had been the chief, if not the only actor, in a Jacobite incident, which greatly excited the town in 1749. As a consequence of their joining the troops which followed Prince Charles Edward several of the officers of the Manchester Regiment were hanged and quartered in 1746, and as a warning to any fellow townsman of the rewards of disloyalty to the reigning house, the heads of Thomas Deacon (the son of

Dr. Deacon, who had a small practice in the town), and Thomas Syddall were sent down to Manchester to be spiked in a public place; and we read in the Constables' Accounts of the town for that time that a sum of one-and-sixpence was paid to the constable for his expenses for attending on the Sheriff when the heads were fixed on the Old Exchange. The heads remained exposed until 1749 when they suddenly disappeared one night, and the man in the street, or his eighteenth century equivalent, was provided with a mystery which was not dispelled for about a hundred years. It was Edward Hall who removed them, by running out a plank from Mrs. Raffald's coffee house, adjoining the Exchange, and once secured, he buried them in his father's garden. He was about eighteen years old at the time, a Jacobite and a medical student. What more need be said as to the probability of the truth of the story? The manner in which this story was revealed is rather romantic. In 1828, when Edward Hall's last sister Frances was dying, she told Dr. James Lomax Bardsley, who attended her professionally, the above facts about the Jacobite skulls, and indicated the exact spot in the garden where they were buried. She asked Dr. Bardsley to promise

to have them taken up and re-interred in consecrated ground as soon as she was dead. This promise Dr. Bardsley carried out, and the skulls were buried in St. Ann's Churchyard. Out of curiosity I searched the registers of the church for the period, but found no entry in them to confirm this fact. The matter was probably arranged privately between Dr. Bardsley and the sexton.

Edward Hall was one of the founders of the Literary and Philosophical Society, but has left us no writings, and evidently lived a quiet but busy professional life, after the rape of the Jacobite skulls.

There is a portrait of him in oils in the board-room at St. Mary's Hospital which has been reproduced here by the kind permission of the Committee of the Hospital.

RICHARD HALL.

RICHARD HALL.

Honorary Surgeon to the Infirmary, 1779 to 1790.

RICHARD HALL was a son of Richard Edward Hall, and was born about 1752.

He was educated in Salford, at the Rev. John Clayton's school, which was then in great repute. At eighteen he was apprenticed to his father and brother Edward, and afterwards went to London, where he studied at St. Bartholomew's Hospital, and was taught anatomy and midwifery by Hunter and Denman. He had paid especial attention to the latter branch of medicine under his father and brother, "whose celebrity and extensive practice in the obstetric art have been seldom if ever surpassed by any provincial practitioners."

In 1775 he took charge of Mr. Burchall's work at the Infirmary during the latter's illness, and continued to do so until 1779, when Mr. Burchall, "being in a state of lunacy," was asked to resign. Hall was then appointed Surgeon to the Infirmary, an

appointment which caused considerable stir in the town, a senior man, Mr. Starkie (who was an apprentice of Charles White's in 1759) having wished to apply for the post himself. Accusations of nepotism were made against the Halls and Whites, and a rather acrimonious correspondence ensued. (See Mr. Burchall).

In 1790 Hall resigned his position on the Infirmary staff, with his brother and other colleagues, as a protest against the increase in its numbers. In this same year he helped in the founding of the Manchester and Salford Lying-in Charity, and both by his personal exertions amongst his many and influential friends, and by his own liberal benefactions, he contributed greatly to its advancement.

As a surgeon, we are told, his method of operating was distinguished by dexterity and neatness. As an accoucheur, he had an extensive and highly respectable practice, and was very successful in it. In his private notes he says that he attended 3,800 lying-in cases.

During the course of his practice he inoculated thousands for the smallpox, and is said never to have lost a single patient from the inoculation.

"The great and merited reputation he obtained

among the higher ranks of the community in the obstetric art justly entitle him to be held forth as an example to the younger members of the profession. A conduct uniformly decorous, gentleness and delicacy of behaviour, and strict purity of morals, are essentially necessary to engage the confidence and conciliate the esteem of persons of education and sensibility. Few possessed these amiable qualities, so requisite for distinguished success, in a greater degree than Mr. Richard Hall."

Richard Hall was Surgeon to the Royal Manchester and Salford Volunteer Corps—an office which was in his hands no sinecure. Not only did he treat the men when they were ill, but he undertook, gratuitously, the medical care of their wives and families, and he was liberal to those needing help. In 1800 he was presented with a silver cup by the officers of the regiment in token of their sense of his unremitting attention in the service of the corps.

He died (unmarried) on Thursday, June 4th, 1801, aged 49, and was buried with military honours in the Collegiate Church.

He was one of the original members of the Literary and Philosophical Society. He lived in King Street most of his life, and was in good circum-

stances, judging by the large sum left by his sister Frances (who survived him twenty-one years) to Manchester charities, £11,000 of which went to the Infirmary, and was expended on extensions, including the encasing of the hospital with stone.

The accompanying portrait of Richard Hall has been reproduced from an oil painting at St. Mary's Hospital by the kind permission of the Committee.

REFERENCES.

Richard Edward, Edward, and Richard Hall. Gent.'s Mag., Vol. LXXI., p. 673; Renaud's Short Hist.; Ormerod's Cheshire, 2nd Ed.; Hibbert Ware's "Foundations"; Byrom's Literary Remains; Manchester City News, Old Moss Side, Crofton, Feb. 14, 1903; Lancs. Gleanings, Axon: Manchester Hist. Recorder; Manchester Notes and Queries, VI., p. 88; Manchester Constables' Accounts.

PETER MAINWARING, J.P., M.D.

Honorary Physician to the Infirmary, 1752 to 1782.
Physician Extraordinary, 1782 to 1785.

PETER MAINWARING was born about 1696. He was one of the Smallwood branch of the family and a connection of the Mainwarings of Kermincham, Cheshire, and was at one time heir in remainder of the family estate at Kermincham. He was in practice in Manchester before 1725, but I have been unable to find any facts about his early life beyond an occasional mention of him in Byrom's diary in small matters of a social nature, such as having attended St. Ann's Church, on such and such a Sunday and walked (with Byrom) after sermon by the river by Strangeways. He attended professionally some members of the Byrom household.

He was evidently a friend of Dr. John Byrom's the poet, shorthand teacher, and most prominent figure in Manchester life at this time, though they differed on the all-important question of the day as

to who was the rightful King of England, Byrom being the leading Jacobite of the town, and Mainwaring a loyalist and a Justice of the Peace.

In 1731 he married at Ashton-upon-Mersey, Ann, daughter of Dr. Robert Malyn, who was in practice in Manchester in a considerable way.

It is not until we come to 1745 that we get interesting glimpses of the part Mainwaring played in the stirring events of the period, and we are indebted to Byrom's daughter, Miss Elizabeth, or "Beppy," Byrom for these. In her brightly written diary she gives a vivid account of what she knew of the events of the Jacobite occupation of Manchester and Dr. Mainwaring is frequently mentioned, at times to have fun poked at him for his dull loyalist views, by the enthusiastic Jacobite girl. Thus, we are told, "Dr. Mainwaring goes about frightening folks—namely, my Uncle and Aunt Ann," and that "he says that the rebels have done nothing but what a rabble without a head might have done." This was in the days before the Highlanders passed through on their ill-fated march towards London.

At a later date Miss Byrom writes of the retreat from Derby—"Dr. Mainwaring ordered the bellman to go round and give notice to all the inhabitants

of the town that they are desired to rise and arm themselves with guns, swords, shovels, or any other weapons, and go stop all the ends of the town to prevent the rebels from coming for two hours, and the King's forces will be up with them;" and "I saw the doctor on horseback in the midst of the mob encouraging them much and promising them to send all the country in as he went (for he ran his way as soon as he had done), and accordingly he did, for all the country folk came in with scythes, sickles, etc." He also sent a party of townspeople to Cheadle on a fruitless errand to destroy the ford over the Mersey there. This would have prevented the Jacobite troops from crossing the river and returning by the most direct route to the North—and have enabled the Duke of Cumberland, then following closely in pursuit, to overtake them. The troops, however, crossed the ford and came back to Manchester, and Miss Byrom heard that a party of them had been at Dr. Mainwaring's house, and "had been a little rough." He lived at 12, King Street part of his life, and probably at this time.

All too soon the last note comes on December 11th, 1745, "The bells are ringing, for they expect the Duke of Cumberland every minute. Dr. Mainwaring

is come home, he looks mighty gruff, he is gone straight through the town to meet the Duke."

There are many notes of the expenses incurred by Dr. Mainwaring, as Justice of the Peace, in the Manchester Constables' accounts for the period, but no information of any biographical value.

It was about seven years after these events that the Infirmary was founded, and Dr. Mainwaring was appointed as one of the original physicians. He retired in 1778, and was made Physician Extraordinary in 1782, when he presented many of his books to the Trustees of the Infirmary. This was the origin of the valuable library in the hospital.

He was elected President of the Literary and Philosophical Society, on its foundation, as a tribute of respect to his past work and great age—he must have then been about eighty-seven. This office he held for one year, sharing the honour with Mr. James Massey.

He died on December 30th, 1785, and in Harrop's Manchester Mercury, January 3rd, 1786, it says:—"Last Friday died, in the 91st year of his age, Peter Mainwaring, M.D., of this town. A gentleman highly respected for his integrity and public services in the line of his profession, and as a magistrate

and greatly beloved by all who had the happiness of his acquaintance." He was buried in St. John's Churchyard.

I have been unable to trace any writings to Dr. Mainwaring.

In a medical directory, published in London, 1779, Mainwaring is described as being M.B. (Cantab), and in one published 1780 as M.D. In looking through the list of graduates of Cambridge University, there is the name of Peter Mainwaring as graduating B.A. in 1716, and M.A. in 1720, but no note of any medical degree. A reference to the registers of Trinity College shews that this Peter Mainwaring, aged 17, entered as a sizar on May 30th, 1713, and that he was the son of Peter Mainwaring (then 1713, deceased), of Wyburnbury—*juris consulti.* He was from Northwich School. The age thus given agrees with that of Dr. Peter Mainwaring, who was born 1796.

REFERENCES.

Literary Remains of John Byrom, Chetham Society; Ormerod's Cheshire, Second Edition; Manchester Constables' Accounts; Harrop's "Manchester Mercury," 1786, Jan. 3rd; List of Graduates, Camb. Univ.; Renaud's Short History Manchester Royal Infirmary; Medical Directory, London, 1779 and 1780; Register of Students, Trin. College, Cambridge; Registers, St. John's Church, Manchester.

SAMUEL KAY, M.D.

Honorary Physician to the Infirmary, 1752 to 1782.

Physician Extraordinary, 1782 to 1784.

Dr. Kay was son of Richard Kay, of Walmersley, near Bury, where he was born February 17th, 1708.

According to his cousin's diary he studied at Leyden University in 1733, but in a medical directory published in 1779 in London, Kay is described as having graduated at Edinburgh University, with a thesis de Nephritide in 1731. It is probable that he studied at both universities, taking the degree of Doctor at Edinburgh.

He was Physician to the Infirmary for thirty years, having been so appointed on its foundation. He retired in 1782, about which time (1781) he was living in Half Moon Street.

He was related to John Kay, the inventor of the flying shuttle.

Very little information can be found concerning Dr. Kay. He is briefly referred to in a diary kept by his cousin, part of which was printed recently for private circulation, with the title "A Lancashire doctor's diary, 1737 to 1750." He was in practice in Manchester in the year 1745, and was a loyalist. At the approach of the Pretender, Kay, like most of those loyalists as well as Jacobites, who could manage it, left the town to avoid the rebels. He went to his home at Bury on December 8th, 1745, and thence with some of his relatives, one a doctor, to Rossendale, to raise the loyal people.

We are told that Kay had a great love for horses, and possessed a stud farm on the hills not more than a couple of miles off Manchester. "Here the learned doctor sought refreshment from the fatigues of his medical duties, and renewed vigour from the dry and bracing air of the hill country."

Dr. Kay is specially interesting to Manchester medical men as being the first physician in the town to prescribe cod-liver oil internally, not, however, for phthisis, but for chronic rheumatism.

Dr. Darbey, writing in 1782, says:—"About ten years since an accidental circumstance discovered to

us a remedy, which has been used with the greatest success, for this complaint, but is very little known in any county except Lancashire: it is the cod, or ling liver oil—*Oleum jecoris aselli.* A woman who laboured under the most excruciating rheumatism, and was an out-patient of this infirmary, being advised to rub her joints with the oil, was advised to take it, at the same time internally. A few weeks restored to her the use of her limbs, and she was cured. However, little attention was paid to this case, as it was supposed that the alteration of the weather, and the medicines she had before taken, had caused the cure. About a twelvemonth afterwards, her complaints returned with double violence, and the same remedy restored her to health again."

"Encouraged by this second recovery, Dr. Kay, one of the physicians to the Infirmary, prescribed it for other patients, in similar cases; and it answered his most sanguine expectations. Since then it has been used by the other physicians, with the greatest success."—(Letter written by Dr. Darbey (q.v.), in 1782, to Dr. Percival).

Kay died unmarried on the 23rd or 28th of February, 1784, and was buried at Cross Street

Chapel, though there is no memorial to him to be found now inside the chapel or in the grave-yard, the stone having probably been removed during alterations in the Chapel.

References.

Baker's Memorials of a Dissenting Chapel; Palatine Note Book, Vol. IV., p. 20; A Lancashire Doctor's Diary; Axon's Annals of Manchester; "City News" Notes and Queries, 1903, April 25; Percival's Essays, Vol. II., Fourth Edition, p. 354; Manchester Directory; Renaud's Short History; Medical Directory, London, 1779.

JAMES WALKER, M.D.

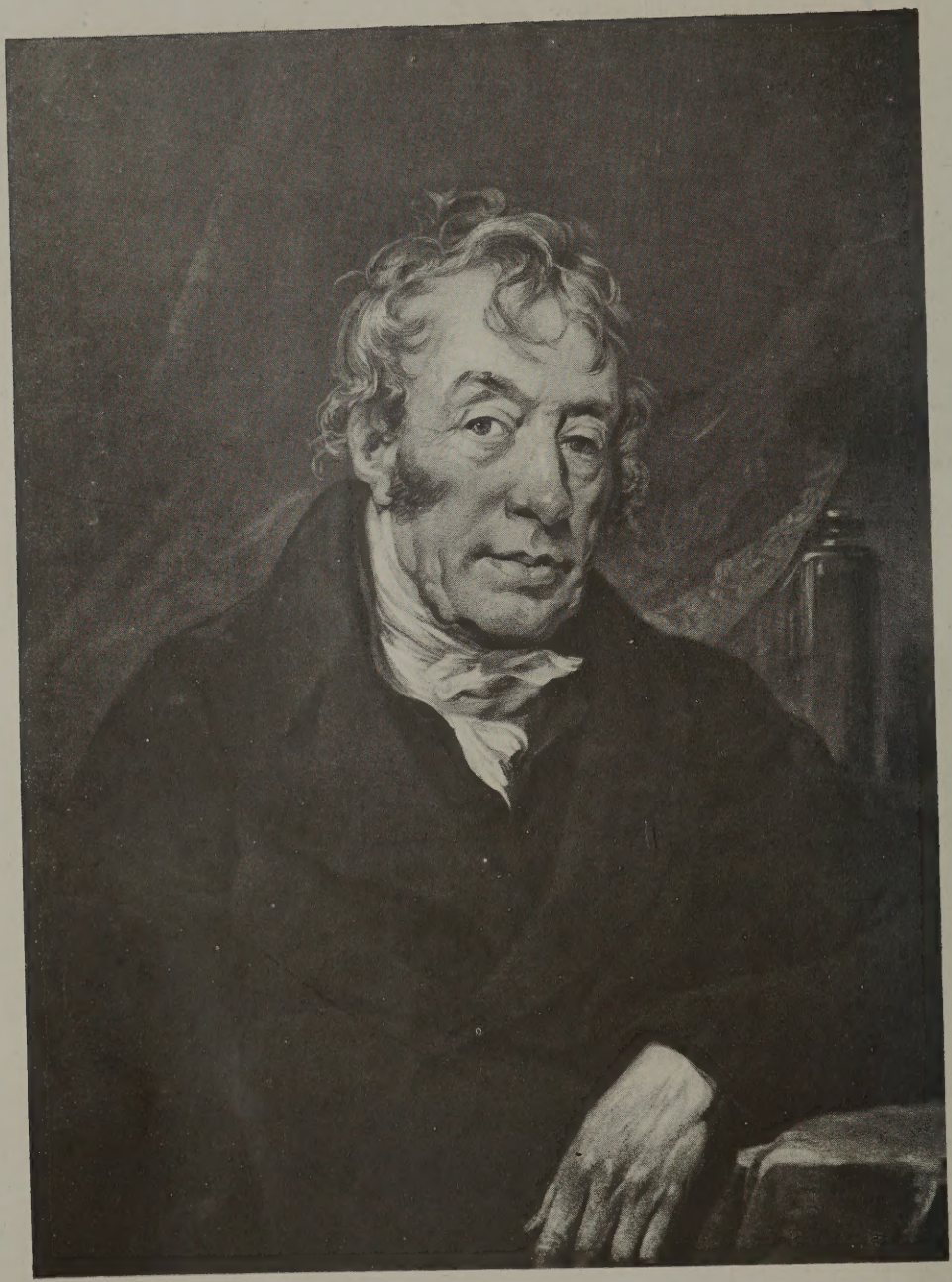
Honorary Physician to the Infirmary, 1752 to 1758.

WALKER was one of the original honorary physicians to the Infirmary, but only held this post until 1758, when he resigned.

I think that this James Walker is identical with the James Walker who matriculated at Brasenose College, Oxford, in 1733 or 1734, and who took the Oxford M.B. degree. He was the son of James Walker of Manchester, and was born in 1719. He became a Fellow of the Royal Society in 1764, having been nominated by Charles White and Dr. Percival, amongst others. He afterwards lived at Springfield, near Hull, where he had an estate. He died on February 22nd, 1789. His grandson became Sir James Walker, Baronet, of Sand Hutton, Yorks.

REFERENCES.

White's Particular Narrative; Foster's Alumni Oxoniensis; Foster's Baronetage.



CHARLES WHITE.

CHARLES WHITE.

Honorary Surgeon to the Infirmary, 1752 to 1790.

CHARLES WHITE, one of the founders, and for thirty-eight years Honorary Surgeon to the Manchester Infirmary, one of the founders of the Lying-in Hospital (now St. Mary's Hospital), the originator of lectures to medical students in Manchester, the founder of the science of anthropometry, and for half a century the most original, able, and prominent surgeon in the town, was born in Manchester, on October 4, 1728. He was the only son of Thomas White, L.R.C.P., a surgeon and man-midwife, of large practice and high repute in the town.

He received his early education in Manchester from the Rev. Mr. Russell, a "respectable clergyman, a good scholar, and a polite and well-bred gentleman." When still very young, he was taught by his father the rudiments of his profession, shewing great aptitude for it, and we are told that he began whilst almost a boy to practise in a line which was then generally confined to men of a mature age.

The line thus referred to is that of midwifery,

for his father had a considerable reputation for skill in dealing with these cases, and indeed White, writing in 1773, said that he had himself at that date had over twenty-five years' experience of lying-in work. In 1748 White was twenty years old, so he must have begun his midwifery work well before he was eighteen.

After being apprenticed to his father, Charles White went to London, where he studied under William Hunter, having John Hunter, with whom he formed a life-long friendship, for a fellow student.

In later years John Hunter used to demonstrate a specimen of "a dissection of an arm on which the operation for the aneurism had been performed," prepared by White. The patient died in the Lunatic Hospital connected with the Infirmary. The operation had been performed fourteen years before death for a varicose aneurism, caused by an erratic phlebotomy lancet. Writing at the time, White says, "My friend, Doctor Hunter, has done me the honour to give this preparation a place amongst his valuable collections."

After studying in London White went to Edinburgh for a winter and then returned home to help his father.

It was not until 1762 that White received his diploma of Member of the Corporation of Surgeons. I am indebted to the kindness of Mr. W. B. Kebble, Clerk to the Royal College of Surgeons, for the following extract from the examination books of the Corporation :—

"At a Court of Examiners, held at the Theatre, 18th February, 1762, Charles White (of Manchester) Examined, and received the Grand Diploma."

White thus became a member of the Corporation of Surgeons. The word 'Grand,' Mr. Kebble adds, was generally used about this time (1762) in the title of the diploma.

I have been unable to find the record of any previous diploma, and so probably White began to practise on the certificate granted to him for having served the requisite term of apprenticeship to his father, as was customary in his day in connection with the various arts, crafts, and guilds. He did not receive a Bishop's Licence from Chester.

It may be noted here that the surgeons were not constituted as a Royal College until 1800, and that White could not be correctly described as being a Member of the Royal College of Surgeons until this date.

When only twenty-four years old, White took the leading part, with Mr. Joseph Bancroft, in founding the Manchester Infirmary—a house in Garden Street, Shudehill, being taken for the purpose. It was probably his association with the Hunters, and the experience gained at the London Hospitals, as well as enthusiasm for his profession, that made White volunteer his services as surgeon to the new hospital. Mr. Bancroft offered to guarantee the expenses of the institution for a year, and a meeting was called for June 4th, 1752, in the "Old Coffee House." At the meeting it was decided to go on with the scheme, and George Lloyd, Miles Bower (probably an uncle or a cousin of White's, whose mother was a Bower), John Lees, and Joseph Bancroft were appointed to receive subscriptions and donations. On June 24th the Manchester Infirmary was opened, with accommodation for twelve patients. The immediate success of the scheme made it necessary to provide further accommodation, and plans were accordingly made to build a large hospital on the Daub Hole Fields, in Lever's Row, on a plot of land rented from Sir Oswald Mosley, Bart., lord of the manor, on a 999 years' lease.

It is interesting to note that there was a pond

in these fields which had been used for the hydropathic treatment—by means of the ducking stool—of disorders of a moral nature. There is a quaint picture, from a drawing by Thomas Barritt, of one of these disciplinary incidents, in the Manchester Historical Recorder.

The later developments of the Infirmary have been told so admirably and in such an interesting manner by Dr. Renaud, that I need not occupy any further space here with them.

In 1757 White married Ann, daughter of John Bradshaw, of Bradshaw Hall, Shudehill, Sheriff for the County of Lancaster, 1783, who, as a Justice of the Peace, took an important part in 1757 in suppressing the Shudehill Riot, caused by scarcity of food.

In the early part of his midwifery practice White had the care, for many years, of all the parish poor in Manchester, and in a very considerable circuit of its environs. This was at a time when there were few men-midwives, scarcely one in fifty in proportion to the number half a century later. Women attended to the midwifery work, and the men were only called in for cases of difficulty. In this way White gained experience which was of much value

to him afterwards, and the results of which he published at a later date.

At an early period of his life he began to shew by his writings that he was a strong man, one of original thought, and with ideas beyond those of the average follower of the craft of surgery of his day. In 1760 he communicated, through his friend George Lloyd, of Manchester, to the Royal Society "An account of a remarkable operation on a broken arm," and next year through William Hunter to a "Society of Physicians in London, 'An account of a new method of reducing shoulders (without the use of an ambe) which have been several months dislocated, in cases where the common methods have proved ineffectual.'"

The first of these papers brought trouble at home, through being published in the Philosophical Transactions of the Royal Society (Vol. LI., p. 65) in 1761.

It was a case of non-union of the humerus after a lapse of several months from the time of fracture—the arm had been badly set by a country bone-setter, and when the boy was admitted to the Infirmary, under Mr. Burchall, there was no sign of union or of callus, although the patient was

otherwise healthy. Amputation was proposed, but White advised a longitudinal incision over the seat of fracture to be made, the ends of the bone to be carefully brought out, the extremities of both to be cut off and then returned to their proper situation, and the arm treated as a recent fracture. This was done, and perfect union soon took place.

In the paper, though he took credit to himself for having suggested the operation, White distinctly stated that it had been done by one of his colleagues, about whom he made complimentary remarks, but whom he did not name. This offended Burchall, and he wrote to a London paper, Lloyd's Evening Post, in September, 1761, accusing White of surgical piracy, and saying that he had himself suggested the conservative operation, White having advocated amputation. White was not satisfied with the end of the controversy in the public press, and next year published a pamphlet giving his side of the case—chapter and verse. The title of the pamphlet—which was thirty-five pages long—was "A particular narrative of what has happened relative to a paper published in the 51st Volume of the Philosophical Transactions, entitled 'An account of a remarkable operation on a broken arm, etc.,' in

which the principal facts are proved by evidence." London, 1762. The pamphlet is very interesting, as giving a picturesque account of the methods and customs of the staff of the Infirmary in 1760, and it shews conclusively that White suggested the operation, and that he actually performed most of it, because Burchall was failing to remove the ends of the bones satisfactorily.

However, although the paper caused this unpleasantness, it was partly instrumental in obtaining for White the Fellowship of the Royal Society, for which he was proposed in 1761, but which he was not elected to until next year—as Dr. Cullingworth points out.

Another paper communicated to the Royal Society about this time was on "A case in which the upper head of the os humeri was sawed off, a large portion of the bone afterwards exfoliated, and yet the entire motion of the limb was preserved" (Phil. Trans., Vol. LIX., p. 39). As far as White knew, he was the first to perform or publish an account of such an operation in conservative surgery. The patient was a boy aged 14, of scrofulous habit, suffering from extensive disease of the head and shaft of the humerus, with great swelling of the whole arm. The

usual operation then in these cases was amputation at the shoulder joint ; but White excised the head of the bone and an inch or so of the upper end of the shaft. In about two months he found more of the bone dead, and this he removed with forceps. The progress was uninterrupted after this, and with only one inch of shortening, the lad had perfect use of the arm.

The new method for reducing a dislocated shoulder was to screw an iron ring into a beam at the top of a room, and fix one end of his pulleys to it. The other end of the apparatus was fastened to the wrist of the dislocated arm by ligatures, and the patient was then drawn off his feet and suspended, two assistants supporting the arm above the elbow to take some weight off the wrist. The dislocated bone was then manipulated, and soon slipped into its place. In one case this was achieved in less than one minute, although the shoulder had been out for 3 months, and its reduction attempted by several surgeons in the town. White concludes his remarks on the subject by stating his conviction, that if a proper regard be paid to the nature of the articulation and the position of the limb at the time when the accident happened, much less force would be

required for reduction of dislocated joints than it was then customary to employ.

Many cases of stone in the bladder came to the Infirmary from Yorkshire, and White soon established an eminent reputation as a lithotomist. He also by his own work and writings became known widely beyond the limits of the town, and he was frequently called in consultation and asked to do the more serious operations at considerable distances. He was also often consulted by letter from the remote parts of the kingdom.

In 1770 he published a volume with the title "Cases in Surgery," which increased his reputation, and he was deservedly considered as being at the head of the profession in the North of England. It contained reprints of papers previously published in the Philosophical Transactions and in "Medical Observations and Inquiries," and also three by his father.

In 1772 he communicated to the Royal Society "An account of the topical application of the sponge in the stoppage of hæmorrhages."

"I made use of the sponge for the stoppage of hæmorrhages in all cases indiscriminately, for near three years, in which time there were nineteen

operations of the larger extremities, six of which were of the thigh, and in most of the principal operations of surgery, as lithotomy, castration, bubonocele, the trepan, scirrhous and cancerous breasts, besides many accidental wounds, violent hæmorrhages from the extraction of teeth, where it was peculiarly useful, and after the application of leeches. For four or five hours after an operation constant attention was necessary, but after that period the vessels were found perfectly secure, even more so, than when the needle and ligature had been employed." The invention by Mr. Bromfeild of the *tenaculum*—a large curved needle—by means of which the vessels were drawn out from the surrounding tissues and ligatured, superseded the sponge method of arresting hæmorrhage. White himself candidly and promptly adopted the use of this instrument for the larger vessels, and bestowed merited praise on Mr. Bromfeild's invention. He however still preferred the sponge for the smaller vessels.

Charles White was at this time living in Market Street Lane, this being his address as given in a directory of the town for 1772. In a later directory, 1781, he was living in King Street.

A very important work was published in 1773,

namely, "A treatise on the management of pregnant and lying-in women," which was dedicated to John Hunter. The main points which White drew attention to in this work were summarised in 1813 by his friend Thomas Henry, who said that "perhaps few medical books have been more productive of reform in practice, and of more comfort and safety to the subjects for whose benefit it was intended."

"During the early part of the last century, the art of midwifery was not so generally exercised by male practitioners as at present [White himself said in 1801 that there were then fifty times as many men-midwives as in the early part of the previous century], and the female midwives were, too often, extremely ignorant, and were under the dominion of inveterate prejudices. The injurious effects of these deficiences were more felt in the subsequent treatment of puerperal women, than during the time of labour. In difficult parturition, the male accoucheur was consulted; but when the child was born, the management of the mother reverted either to the female midwife, or to a person still more objectionable than herself, under the designation of a nurse. The lying-in woman was not allowed to rise from her bed before the ninth day; the curtains were

drawn around her; the doors and windows were closed; every avenue to the external air stopped; and a large fire was kept in the room. She was loaded with blankets, and crammed with caudle, cordials, and broth. Of this absurd treatment puerperal and miliary fevers were the frequent effects. But if the mothers of that generation died in childbed, the event was attributed to the dangerous process of nature, through which they had passed; they had been treated (as I have heard it alleged) with every precaution against cold; and nothing had been omitted which the midwife had directed. Under these circumstances Mr. White commenced practice. The evil was of great amount and the mortality alarming. To overcome the influence of prejudice and long-established custom, required a manly spirit and steady perseverance, united with real professional ability, and the possession of the public confidence. With these requisites Mr. White finally accomplished his object. His patients, instead of being confined to their beds for above a week, were permitted to rise on the second day; the room was well ventilated and kept cool; and no cordials or vinous liquors were allowed, except when absolutely necessary and under proper restriction. The good effects of

these changes were so evident as to carry conviction wherever they were introduced. The miliary fever almost entirely disappeared, and the puerperal soon became comparatively of rare occurrence."

White believed and taught that the fever was really due to absorption of "matter," and that it was infectious. He knew that it was more prevalent and fatal in large cities and crowded hospitals than in places where the air is more open and pure, and he gave definite advice as to treatment with "antiseptics," and as to isolation of the patient, and disinfection of the room or ward in which she was taken ill.

Writing in 1773 White said in the first edition of his book, "I speak from facts founded upon my father's experience of more than fifty years, and upon my own of above one half of that period." In the second edition published in 1785, in the same passage there is a misprint, sixty occurring instead of fifty, which with its context, makes White to have begun his experience at a very early age. He claimed that he had never lost a case in his own practice from the fever.

When the Literary and Philosophical Society was proposed, White joined enthusiastically in the project

and was one of its founders and original members. He was Vice-President from 1783 to 1806, and read several papers before it, the chief and most important of these being his essay on "Gradation in man," which is referred to more fully on a later page.

He was also a supporter of the proposed College of Arts and Sciences, and one of its Governors during its short life.

In 1783 White delivered a course of lectures on anatomy and physiology, with the aid of his son Thomas, under the auspices of the Literary and Philosophical Society, and as part of the scheme for the College of Arts and Sciences, which it was attempted unsuccessfully to found at this time. These were the first public lectures to medical students delivered in Manchester, and the germ from which our present school has developed. The opening lecture of one of these courses, which were continued for some winters, was thus noticed in Harrop's Manchester Mercury, Tuesday, October 11th, 1785:—

"On Friday at noon, the session of the College of Arts and Sciences opened with an introductory lecture by Charles White, assisted by his son Thomas White, Prælectors in Anatomy and Midwifery, the subject being 'The structures of the

human ear, together with the general principles of sound.' For the illustration of this interesting subject many very curious anatomical preparations were introduced. The company was very numerous and respectable; and the lecture highly entertaining and instructive, not only to many gentlemen of the faculty present, but to the audience in general."

In 1784 White had the misfortune to lose his second son Charles, who, then a boy of nine and at the Grammar School, was drowned whilst bathing in the Irwell with his brother Thomas and other boys. He was buried at St. Ann's Church, on June 20th, 1784.

The same year White published his celebrated and historical "Inquiry into the nature aud cure of the swelling in one or both of the lower extremities which sometimes happens to lying-in women, together with an examination into the propriety of those who do and those who do not give suck." In this essay he gave no distinctive name to the disease, but in a second part written in 1801 in which he records his further experience of the condition and criticises the critics of Part I., he calls it "*Phlegmasia alba dolens puerperarum.*" The term phlegmasia dolens now applied to the disease was first used in

1800 by Dr. John Hull, of the Lying-in Hospital, in an "Essay on the phlegmasia dolens," in which White's original paper was criticised. White argued that the condition was due to an affection of the lymphatics and not to a deposition of milk in the leg, as was previously taught by continental writers. This theory received many supporters, but it also brought forth adverse criticism, Ferriar being amongst those in Manchester who did not accept it.

Ferriar did not shine in this controversy, which was carried on in rather uncomplimentary language. He quoted a passage from White's work as one which he thought might "perhaps be extracted by some future writer on the '*Art of sinking in Prose*' as a specimen of the 'Obstetrical Bathos.'"

White was particular to describe the condition as coming on in childbed, but Ferriar criticised his theories, and suggested one of his own from the experience of a single patient and that a man. The honours of this small discussion were certainly with White.

The "Account of the late Captain M——'s case," published in the London Medical Journal, 1784, is very interesting from a social, if not from a surgical, point of view. Captain Mounsey and Cornet

Hamilton, of the 79th Regiment, quarrelled over the respective qualities of a couple of dogs, and fought the matter out with swords, the duel taking place in Spencer's Tavern, in the Market Place, on March 10th, 1783. The Captain received a wound in the region of the right axilla, which severed the brachial artery. "A prodigious effusion of blood ensued, and he collapsed at once." The surgeons managed to keep him alive for a few days, but his constitution had become debilitated by his habits, and he succumbed to the results of the wound before a week passed. The coroner's jury acquitted Mr. Hamilton, and the Captain was honoured with a public funeral at St. John's Church. This was probably the last duel in the town, its nearest predecessor having been in 1760, when Mr. Jackson, a medical man—who began the quarrel himself, as he acknowledged—was killed by a Major of the Lincolnshire Militia.

In 1790 after thirty-eight years of service as Visiting Surgeon, White resigned his post at the Infirmary with all his colleagues, Richard and Edward Hall, Surgeons, and Doctors Thomas White (his son), Eason and Cowling. These men thought that unjustifiable attempts were being made to undermine

the constitution of the Infirmary as originally established and lately fully confirmed by the great majority of the Trustees, by the decision to appoint additional members of the honorary staff. The work of the hospital had grown greatly, and it was proposed to double the staff to meet the extra requirements of the patients. The acting staff looked upon this decision as a reflection on the way they had done their work, and as being tantamount to an accusation of neglect of duty on their part. Charles White wrote that for the above reasons and for the "neglect" with which the faculty had lately been treated, he was compelled to quit a situation which he could no longer hold with satisfaction or with honour.

In the same year (1790) that White and his colleagues resigned their posts at the Infirmary, he, with Edward and Richard Hall, and his son Thomas White, founded "The Manchester and Salford Lying-in Charity, for delivering poor married women at their own habitations." The Lying-in Charity was founded on May 6th, 1790. Patients were attended at their own homes only until 1795, when a house near Salford Bridge was taken, and next year the Bath Inn, Stanley Street, was purchased for £1,000,

and converted into a hospital. In 1821 the hospital was moved to the North Parade, St. Mary's, and in 1856 the present St. Mary's Hospital, Quay Street, was opened. Charles White and Edward Hall were men-midwives extraordinary, and Richard Hall and Thomas White men-midwives in ordinary to the new charity on its foundation. Richard Hall supported it freely, both out of his own pocket and by enlisting the sympathy of his many well-to-do friends.

In 1794 White delivered lectures to midwives at the hospital. They had been originally commenced by his son Thomas, who died in 1793.

In 1793 Thomas White, the doctor son, who was for a few years an honorary physician to the Infirmary—resigning this post in 1790 with his father—and a man-midwife in ordinary to the Lying-in Hospital, died. He was thrown from his horse whilst going his rounds, and died on June 19th, 1793. This was a great blow to Charles White for he had a great love for his son, as he evidently had for all his family, dedicating one of his books to him in affectionate terms of hope for his future success in his professional work.

The proposal to establish fever wards on the

Infirmary grounds in Portland Street in 1796, which was originally made by Dr. Ferriar and supported by his colleagues on the Infirmary staff and many influential townspeople, was opposed vigorously by White, Dr. Eason, Dr. Cowling, Richard Hall, and other doctors with their following of laity, including Sir John Parker Mosley, from whom the land on which the Infirmary stood was bought and who owned more property in the neighbourhood. At a meeting of this opposing faction questions were submitted to the medical men, and in reply White and his colleagues stated that fever wards were not proper to be introduced into the fully inhabitated part of the town; that the proposed hospital of itself and from its situation—which its proposers said was on the outskirts of the borough—was not likely to produce the desired end as held forth to the public, and even that it might spread infection.

To the present-day observer it is questionable whether the attitude taken by White, Eason, Cowling, and Hall in the fever hospital discussion was altogether disinterested, for all of them had resigned their posts on the honorary staff at the Infirmary in 1790 with a grievance against the trustees, and they were superseded by the members of the staff

who were advocating the establishment of the wards, namely—Ferriar, Jackson, Bardsley, Holme, and others, including Percival, then Physician Extraordinary to the Infirmary.

The Manchester paper which gave an account of this meeting has the following further paragraph:—"Charles White having delivered his sentiments in writing on the situation and other matters necessary in hospitals, particularly those intended for contagious fevers, and Mr. White being requested that this meeting might be at liberty to publish them, they will be laid before the public with all convenient speed."

I have not been able to trace a copy of this paper, and the only suggestion of any of its contents obtained is from the replies which it called forth from the Infirmary men. White approved of the isolation of fever patients when such appeared in the Infirmary wards but not of founding a separate fever hospital. He went so far as to deny that the removal of patients on the plan of the Board of Health would materially lessen the number of fever patients. Yet the home patient list of the Infirmary was reduced one half very soon after the House of Recovery was opened. White also doubted

whether fever patients would consent to go into such a hospital as it was proposed to erect. In reply to this opinion Ferriar and his following said, "Mr. White is not in the habit of attending the poor, otherwise he would have known that the House of Recovery, clean and well regulated as it will be, must be considered an enviable asylum by the objects for whom it is destined."

But in spite of White's vigorous opposition, the advocates of opening the House of Recovery on the Infirmary land, which was, as they said, on the outskirts of the town, carried the day, and the immediate and great success of the hospital proved them to have been right in their contentions.

One of White's works which created considerable impression at the time it was published, in 1799, and is still referred to by scientists, is, "An account of the regular gradation in man, and in different animals and vegetables, and from the former to the latter. Read to the Literary and Philosophical Society of Manchester, at different meetings, in the year 1795. London, 1799." The preface or advertisement of the work says, "The author of the following essay has no desire to elevate the brute creation to the rank of humanity nor to reduce the

human species to a level with brutes: and he hopes that nothing advanced will be construed so as to give the smallest countenance to the pernicious practice of enslaving mankind, which he wishes to see abolished throughout the world. Neither is he desirous of assigning to anyone a superiority over another except that which naturally arises from superior bodily strength, mental powers, and industry, or from the consequences attendant upon living in a state of society. He was insensibly led to the present consideration from hearing Mr. John Hunter's remarks on the 'Gradation of Skulls,' in addition to shewing that there are various stages of mental development which can be traced in the different races of mankind."

The object of the essay is also to prove that there is "a general gradation from man through the animal race; from animals to vegetables and through the whole vegetable system. By gradation is meant various degrees in the powers, faculties, and organisation. The gradation from man to animals is not by one way; the persons and actions descend to the orang-outang, but the voice to birds."

There is no attempt to shew that man is developed from the lower animals; in fact White thought

that a more degrading notion than that all the species of the animal kingdom were developed from one pair could not be entertained, and all his arguments, he thought, precluded such a belief. All the different species of the animal kingdom were created so originally, and so constituted as to be kept apart from each other. There was no intermixing between the species unless nearly resembling each other, and even then only in a limited manner. He evidently had no idea of the effect environment has on modifying species, nor of the doctrine of the struggle for existence and the survival of the fittest.

To get material for his essay White took anthropometric measurements from several Europeans, beginning with members of his own family, and also paid some visits to Liverpool, where he examined and measured about fifty negroes, men, women, and children, born in very different climates.

This paper is still a most important one in the literature of the science of Anthropometry. It has been referred to quite recently by Dr. Myers, in the "Journal of the Anthropological Institute" (1903), p. 36, in terms which suggest that it was the first published paper dealing with the comparative measurements of various races for scientific purposes, and in

criticism, noticing Dr. Myers' paper, a writer in the "British Medical Journal" (Oct. 31st, 1903) speaks of White as the "Father of Anthropometry."

A passage from the preface or advertisement of the book gives us an interesting picture of some of White's habits at this period of his life.

"The author does not profess to have a knowledge of natural history adequate to the extent of his undertaking. Indeed few opportunities have been afforded him for prosecuting studies of this kind, since he has been almost constantly engaged during the greater part of his life in the practice of a fatiguing and anxious profession: even the hours which he has employed on this work have been, in a great measure, abstracted from the time usually dedicated to sleep."

It is more than probable that much of his reading, like that of Percival, was done in his carriage; and it is interesting to hear that a gentleman who died a nonagenarian in 1854 recollected the time when there were only three private carriages in Manchester. These were owned by White, Percival, and a Salford lady.

For part of his busy life Charles White lived in a red brick house at the corner of Cross Street and King Street, where the Free Reference Library now

CHARLES WHITE'S HOUSE, KING STREET AND CROSS STREET.

stands. It was a house of considerable size, for his museum of anatomical specimens was there, and a flight of steps led to the front door. These were "protected" by railings which evidently at one time were looked upon as likely to bring much more custom to Mr. White as a surgeon than was desirable. So we read in the "Court Leet Records" for October 13th, 1790:—

"The Jurors . . . do Present that two iron rails or fences appertaining to the steps leading to the House in the occupation of Mr. Charles White, Surgeon, which project into the Common Highway in a certain Street called King Street, within the jurisdiction of this Court, which is a very dangerous Nuisance to his Majesty's Subjects passing and repassing in and through the said Street, And they do Order the Bailiff of this Court to give Notice to the said Mr. Charles White, that unless he removes the said Nuisance within fourteen days from the date of such Notice, he is Amerced in the sum of Ten Pounds and Ten Shillings."

After the Whites left the house it was used as a barrack for foot soldiers during the Blanketeering times, and finally was pulled down in February, 1821, and the old Town Hall built on its site.

The contents of White's museum, which was at his King Street house, must have been very numerous, for in 1806 he expressed his readiness to sell his anatomical collection to the Infirmary, and after negociations asked for £226 for only a selection. The Infirmary trustees would not accept the offer, and White gave the contents of the museum to the Lying-in Hospital, where they were afterwards destroyed by fire. A Catalogue of 285 "Anatomical preparations, casts, drawings, machines, instruments, &c., in White's Museum, Lying-in Hospital," was published in 1808.

In 1799 White experienced what must have been a very sad and severe blow by the death, at the age of twenty-seven, of his youngest son, John Bradshaw, then in practice with his father at 19, King Street, and a medical officer at the Lying-in Hospital. His three other sons had died some years previously, Charles, the firstborn, in 1761, when an infant; Thomas, the second son, who had been Honorary Physician to the Infirmary and was Man-midwife in Ordinary to the Lying-in Hospital, in 1793, aged twenty-eight; and the third son, also called Charles, in 1774. Thomas and John had assisted him in his extensive practice, but now at the age of seventy-

one he had no son to share his work, and, although still a very active man he must have felt the need of more rest than had ever been his in a very busy life. He, therefore, made enquiries in Edinburgh and London, and as a result arranged with Benjamin Gibson, who was recommended to him as a very skilful anatomist, to come to Manchester as his assistant. Gibson came in 1799 and assisted White for eight years. He was appointed Honorary Surgeon to the Infirmary in 1804.

During his later years White took much interest in his garden at the Priory, Sale, paying especial attention to forest trees He read a paper on the subject at the Literary and Philsophical Society in 1797.

In 1803 he was attacked by ophthalmia, then epidemic, which affected the left eye so severely that he lost the use of it. He still, however, continued to practice and to operate until 1812, when the right eye was affected and total loss of vision ensued. His general health then rapidly declined, and he died on February 20th, 1813.

He was buried at Ashton-upon-Mersey Church, where there is a mural monument, a plain marble slab, inside the Church to his memory.

Near this place
lieth the body of
THOMAS WHITE, M.D., who died July 20th, 1776,
Aged 80.
Also ROSAMOND, his wife, who died April 23rd, 1777,
Aged 70.
Beneath this marble
lieth also
the body of CHARLES WHITE, Esquire,
Member of the Corporation of Surgeons
and Fellow of the Royal Society,
who,
after rendering himself eminent
in his profession for the space
of 60 years
by a dexterity and extent of knowledge
scarcely exceeded by any of his contemporaries,
retired
to the enjoyment of rural and domestic felicity
in the society of his family and friends
at Sale
within this parish.
He died on the 20th of February 1813, aged 84.
Also the body of JOHN BRADSHAW WHITE,
who died April 27th, 1799, aged 27.

Mr. Thomas Henry, a friend and contemporary of White, has left us an interesting account of the personal side of the man :—

"Mr. White was admirably fitted, both by his bodily constitution and by the qualities of his mind, for the successful exercise of the profession in which he was engaged. Even in advanced age he was capable of performing, without fatigue, very long journeys on horseback and of bearing without injury to his health exposure to the most inclement weather. He required little sleep and was during the greater part of his life an early riser. His mind was never unemployed, he had a complete disdain for everything like empirical concealment, and always invited respectable surgeons to see his operations. As an operator he was steady and collected, and was prepared both by the natural firmness of his mind and by the accuracy of his anatomical knowledge to encounter, without dismay, those impressive difficulties that sometimes occur even to the most sagacious surgeons.

"His manner with the sick was singularly calculated to inspire confidence, for he evinced by the attention which he gave to the case, and by the promptitude and firmness with which he decided,

that he was intent on employing all the resources of his skill and knowledge. His manners and feelings were those of a well bred gentleman, and he was an agreeable and instructive companion. He abounded with entertaining anecdotes. Even for those branches of knowledge which he had not cultivated he entertained respect; and his mind was awake to all those sources of casual information which, to one extensively engaged in medical or surgical practice, must often supply the want of opportunities of retired and undisturbed study.

"As a Lecturer he had qualifications which, in a public school of medicine, would have raised him to distinguished eminence.

"As a Teacher, great correctness and clearness in his knowledge and perspicuity in conveying it; an agreeable voice and a distinct articulation, and a countenance enlivened by the interest which he felt in his subject, and with which he succeeded in inspiring his hearers."

An interesting but not altogether unbiassed opinion of the London surgeons on Charles White is seen from the minutes of evidence taken before the Select Committee on Medical Education, in 1824. Sir Astley Cooper was being examined on

the mode of election of the Council and of the Examiners of the Royal College of Surgeons, who were drawn almost exclusively from the staff of some of the London hospitals, and the following question was put to him :—"You have recommended that those should have a preference, as surgeons to any London hospital, who have been educated as pupils or apprentices at that hospital. Would not such a rule have the effect of excluding from London hospitals such men as the late Mr. Hey of Leeds, and Mr. Charles White of Manchester, and could a rule which would prevent the choice of men so eminent operate in the long run beneficially for the hospital or the public?" Sir Astley Cooper in reply said :—"Mr. White of Manchester I knew, and I do not think that any great evil would have arisen from his exclusion. Mr. Hey I did not know." Before the same Committee Sir Anthony Carlisle, a Member of the Council of the College and Professor of Anatomy at the Royal Academy also said :—"Many of the general practitioners in the country have contributed to the improvement of surgery, as for example Mr. White of Manchester. But if Mr. White or the others had lived in London, I think the collision of metropolitan society would

have made each of them greater men than they were. All great men in large states have been resident in the metropolis, and perhaps have been raised to high eminence on that excitement."

Another interesting, though perhaps irrelevant, fact is that in giving evidence before a Committee of the House of Commons on Medical Education, in 1824, Sir Charles Clark, when detailing those men who first began to teach or write about midwifery makes no mention of White, an omission which is not to Sir Charles Clark's credit.

A surgeon of Charles White's striking personality and professional skill could not fail to be much sought after as a teacher of young men who wished to become surgeons and man-midwives, and one cannot read what accounts there are left of the lives of the medical men of his time without often coming across the names of those who had been apprenticed to him. I have been allowed by Mr. J. C. Swan, White's great-great-grandson, and Dr. Cullingworth, to see the deeds of apprenticeship of one of these medical pupils.

In drawing up such deeds, White used to protect his own and his sons' professional interests by inserting a clause to the effect that, when qualified,

the apprentice should not, under a penalty of £1,000 in case of breach of the contract, practice within the towns of Manchester and Salford or the district defined by a radius of 10 miles from these towns, during his own lifetime or that of his two sons, Thomas and John Bradshaw, the last of whom died in 1797. And thereby hangs a tale. The most celebrated of his apprentices in after years was Peter Holland, of Sandlebridge, who, when aged seventeen, was bound to White for three years, from 1783 onwards. It is his deed of apprenticeship that I have seen. When qualified Holland went to live at Knutsford, which was outside White's preserve. He, however, either forgot his agreement, or thought it a dead-letter, and evidently used to poach. Consequently in 1809 he received a lawyer's letter from White demanding the forfeit of one thousand pounds. The matter was settled "on terms not stated" by, it is said, the intervention of the Earl of Stamford and Warrington, whose wife Holland had attended at Dunham Hall. Holland became a very successful practitioner, and very much respected in the county. He was uncle to Mrs. Gaskell, one of his sisters being her mother, and his character is drawn very faithfully as Dr. Gibson, in "Wives and

Daughters." His son Henry entered the profession and was made a baronet, and the present Lord Knutsford is grandson to Dr. Peter Holland.

The effect of White's personality on the lay mind was also very great, but, whereas it may be said that it was his surgical craft that appealed to the minds of his medical brethren, it was more the mystery of his profession that attracted the general public. One would have expected that such a personality would have found its way into some novel, but I am aware of no character which has any claim to White as a prototype. Mrs. Linnæus Banks in the appendix to the "Manchester Man" refers to him as the eminent and eccentric surgeon who helped to found the Infirmary, and this is the nearest White ever came to such immortality as is conferred by the pages of a novel.

But autobiography makes more than amends for this failure of fiction, and De Quincey has left us several pages describing his acquaintance with White and recording for us interesting facts about White's personality and his position as a professional man, and of the romantic stories which centred round his museum and its contents.

A mummy in White's possession was the special

object of much interest and curiosity on the part of Manchester folks during its owner's life-time, and has continued so to the present day. The story as given by De Quincey, who, when a youth saw White daily at one time, and became intimate with him, profiting greatly by this intimacy, is interesting. We are told that "Mr. White possessed a museum, originally directed simply to professional objects, but later furnishing attractions to an unusually large variety of tastes." Of the contents, the only ones that De Quincey remembered were the "humanities" in it—a mummy and a skeleton. "The mummy was that of a lady whom Charles White had attended medically for some years with benefit. She therefore left him by will a bequest of not less than £25,000, but with one condition annexed, that she should be embalmed, and that once a year Mr. White with two witnesses of credit should withdraw the veil from her face. The lady was placed in a common clock case, having the usual glass face; but a veil of white velvet obscured from all profane eyes the silent features behind. The clock I had seen when a child and had gazed upon it with inexpressible awe."

The probable facts of the case, as given in

recent times, are that one of White's patients, a Miss Hannah Beswick, of Birchen Bower, Hollinwood, and of Cheetwood Old Hall, had a great dread of being buried alive, owing to an experience of a relative of her's who was taken ill when travelling abroad in some plague-stricken country, and only saved from such a fate by the timely appearance of a friend. She, therefore, left a sum of money with which White purchased his estate, The Priory, at Sale, or else left the estate itself, on condition that she should remain above ground for 100 years. She died in 1757 and was embalmed by White. The mummy was kept in several places. When in White's possession it would be in his museum, but it was also said to have been kept on the roof of his house at Sale; then he left it to his friend Dr. Ollier, of King Street; afterwards it was put in the Museum of the Natural History Society. Tradition has made it live in other places, but on July 22nd, 1868, the hundred years having more than expired, it was finally buried at Harpurhey Cemetery.

Many people living at the present day heard of it or had actually seen it and described it as a repulsive looking object, swathed in ticking and standing upright in a wooden case.

The skeleton, De Quincey says, was that of the highwayman, Higgins, who made Knutsford the headquarters of his avocation, living the life of a reputed gentleman until he expiated his crimes on the gallows tree.

There is a portrait in oils of Charles White in the library of the Infirmary, by Tate, and a bust, recently carved in marble, also at the Infirmary.

A much finer portrait, painted by Allen, at a later age, now in the possession of Mr. J. C. Swan, was engraved in mezzotint, by Ward, and issued in colour also.

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JAMES BURCHALL, M.D.

Honorary Surgeon to the Infirmary, 1752 to 1779.

No facts concerning the early life of Mr. Burchall have been forthcoming. He was appointed Surgeon to the Infirmary on its foundation and remained on the staff for 27 years when he resigned, after being requested to do so, because he had been ill and unable to work for three years.

In an old medical directory published in London in 1779, Burchall is described as being a Doctor of Medicine of Rheims University, a degree which he took about 1763-4. In the Annual Report of the Infirmary for these years the degree of M.D. appears for the first time after Burchall's name.

Burchall published one paper, in "Medical Facts and Observations," which was read for him by William Hunter before a Meeting of Physicians in London, the title being "An aneurysm in the thigh perfectly cured by the operation, and the use of the limb preserved." It calls for no special comment.

The only other printed matter that has been found is in connection with a difference Burchall had with Charles White (q.v.) over a paper published in the "Philosophical Transactions of the Royal Society." White in 1761, not being a member of the society, had written "An account of a remarkable operation on a broken arm," which was read before the society by his friend George Lloyd. The communication was published in the "Transactions," and Burchall felt himself slighted for he had himself performed the operation, though the unusual features of cutting down on the ununited ends of the bone and cutting off the ends were suggested by White to save amputation. In White's paper, although it stated that the operation was performed "by a surgeon of unusual abilities," Burchall's name was not mentioned and the latter accused White of literary piracy in a letter which he wrote to "Lloyd's Evening Chronicle"—a London paper. Rather an angry controversy ensued in letters in this paper and in a pamphlet by White (q.v.) on the subject. Burchall had a certain grievance, though White showed that if any offence had been committed it had been quite unintentional.

From a broadside or letter "On the surgical

monopoly at the Infirmary," published in 1779, and written by "An enemy to monopoly and a friend to injured merit," we gather that Mr. Burchall, about or before the year 1775 became afflicted mentally, and was unable to do his work at the Infirmary, so in 1775 Mr. Richard Hall, then about 24 years of age, was asked to attend his patients, and he continued to do this until 1779, when the Board of the Infirmary asked Mr. Burchall to resign. "The enemy to monopoly" accuses Charles White of having in a published letter unjustly said that Mr. Burchall was expelled, and that it was a crime to be of unsound mind, and also wrote very indignantly on the favouritism shown in suddenly appointing Hall, who was a young and inexperienced man, to the post of Surgeon, without giving a Mr Starkie, a much senior surgeon in the town, who desired the post, a chance to apply. However, Starkie died in 1779, and young Hall was appointed Surgeon in ordinary to the Infirmary.

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PHILIP BROWN, M.D.

Honorary Physician to the Infirmary, 1758 to 1779.

Dr. Brown succeeded Dr. James Walker as Physician to the hospital in 1758. The only references to him in medical literature that I have found are in two of Charles White's works. He acted as the mediator between White and Burchall in their difference over the ununited fracture case. He was present at the consultation on the case when it was decided to do the conservative operation, which was in December, 1759. When the controversy began White asked Brown to try and pacify Mr. Burchall, "As from his known humanity I did not doubt but that he would do his utmost to bring about a reconciliation." Brown held his post at the Infirmary until his death in 1779, when Percival succeeded him.

Brown was an amateur botanist and we are told in a catalogue of his plants that were sold by auction at his death, that his garden was "near Manchester. His favourite study engaged him in many connections with merchants in all parts of the globe, and the captains of ships, by whose assistance a

very large collection of foreign seeds was every year procured for him."

He does not seem to have written anything, and was not even a member of the Literary and Philosophical Society.

Brown died on June 17th, 1779, at his house in Marsden Square. A notice of his death and a commemoratory poem appeared in Harrop's paper, June 22nd. I make no apologies for giving both in extenso :—"On Thursday morning, the 17th inst., died at his house in Marsden Square, Philip Brown, M.D. He went a fortnight ago on a visit to Orford, when, unfortunately indulging in his passion for botany and gardening, he remained near an hour in the stove, by which he contracted the fatal illness which he bore with the greatest resignation. It is perhaps difficult to determine whether he was more respectable as a gentleman, as a scholar, or in the line of his profession. The world acknowledged the merit he deserved; and his friends and acquaintances will never forget the memory of so good a man."

"In the sad hour of melancholy woe,
When anguish saddens all our thoughts below;
The bed of sickness finds no comfort near,
Except the friendly sympathising tear.

The human heart by anxious cares opprest,
To peace a stranger, knows no soothing rest;
The tedious hours, while midnight tapers burn,
Forbode fresh sorrows, which too soon return.
The sight of friends, though pleasing in distress,
May soothe our anguish, but gives no redress;
The lot of nature, like the varied clime,
Suffers alike *the gen'ral wreck of time;*
And verdant laurels which are seen to-day
Ere morn may fade, and crumble to decay.
Awake my muse, in mournful strains attend,
The best companion, and a worthy friend;
In silence mourn a loss we all deplore,
Lament ye botanists! that Brown exists no more;
Ye botanists lament, in strains of sorrow weep,
And in your chambers, doleful vigils keep.
In social converse, when the mind elate
Eyes nature in her varied works compleat;
When genius, tempered with a taste refin'd,
Exalts the freedom of the human mind;
When nature strives with art to mend the plan,
And marks her fav'rite as an honest man;
When in the gay circle politeness greets
Her chosen friends, and pleases all she meets,
There let the eye a tear of pity shed,
To mourn her Brown among the hallowed dead."

He was buried in St. Mary's churchyard.

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THOMAS HENRY, F.R.S.

Visiting Apothecary to the Infirmary, 1778—1812

THOMAS HENRY, the son of William Henry, a schoolmaster, was born at Wrexham, October 26th, 1734. He was educated at the Grammar School there and attained much proficiency in his classical studies. He was then apprenticed to an apothecary, want of means preventing his parents allowing him, as they intended at one time, to enter the Church. After a while he moved to Knutsford and then to Oxford, attending at the latter town courses of anatomical lectures in which John Hunter was employed as a demonstrator.

In 1759 he returned to Knutsford and set up as an apothecary on his own account but removed to Manchester in 1764, where he succeeded to a similar business in St. Ann's Square. His work as an apothecary employed him, as will be explained later, in medical attendance on the sick, and for the most part on the more opulent inhabitants of the town. At a later period, ending in 1814, he had James

THOMAS HENRY.

Ainsworth in partnership with him as surgeon-apothecaries. In 1771 he invented a new way of preparing magnesia alba and although he communicated the process to the Royal College of Physicians he was advised by some of the leading members of the college to patent it. He then manufactured the magnesia on a commercial scale and founded a lucrative business, which is still carried on in the original premises in East Street, Manchester. He was on this account familiarly known as "Magnesia" Henry. Henry lived in King Street, but his shop, in 1804, was at No. 1, East Street. In 1775 he was elected as a Fellow of the Royal Society, to which society he contributed several papers on chemical subjects. About this time he noticed that some amount of fixed air in the atmosphere is favourable to the growth of plants, and that water is kept fresh for a long time if slaked lime be placed in the barrels. The latter discovery he thought would be useful for preserving fresh water at sea, but found that the difficulty of getting rid of the lime when the water was wanted for drinking and other purposes made his preservative process useless in practice. Henry used to manufacture aerated waters; and occasionally a prescription ordering Henry's soda water is met

with in the publications of the time. In 1776 he translated Lavoisier's Chemistry into English and later, in 1783, in connection with the College of Arts and Sciences, lectured on bleaching, dyeing and calico-printing, a form of instruction which was in a way the forerunner of our modern technical education. These lectures were continued long after the decline of the college. He also occasionally contributed papers on pharmaceutical subjects to the medical journals.

In 1778 Henry was appointed as one of the visiting apothecaries to the Infirmary and for the next thirty-four years played an important part in the concerns of the charity; his position in the town, his scientific knowledge and his much respected character making his opinions much valued by the trustees and staff of the hospital.

In 1783 he published the "Memoirs of Albert de Haller," the physiologist, anatomist, botanist, and poet.

In 1786, when Berthollet discovered the power of chlorine gas as a bleaching agent, which he freely and unreservedly made public, Henry, having only heard a vague account of the new method, set to work to investigate the steps of the process. In

this he was successful and when, soon afterwards, an attempt was made to patent the process in England by foreigners, who had nothing to do with its discovery, Henry raised a protest, and with the help of a public meeting of Manchester merchants succeeded in preventing the patent being issued, on the ground that the process had been successfully carried out by himself and two other men in England.

Henry was one of the most prominent of the small band of pioneers in the early teaching of science and the instruction of medical students in Manchester. To Charles White, Percival, and Henry must be ascribed the honour of having initiated the movement which, developing very slowly at first but more rapidly later, has in the course of one hundred and twenty years given us the large and highly organized system of medical education which we now have in Manchester. When White began his public lectures on anatomy and physiology in connection with the Literary and Philosophical Society in 1783, or even before this date, Thomas Henry delivered courses on chemistry, and as he was an apothecary by profession pharmaceutical chemistry received its full measure of attention.

The foundation of the Literary and Philosophical

Society owed a great deal to Henry's initiative, encouragement, and support. He was one of the two secretaries for the first five years of its life, and read nine of the first fifty-five papers. He was also Vice-president for eleven years and finally President for ten years, his death taking place whilst he held this office. He also contributed his help to all the movements designed for the amelioration of the conditions of life of the poor in the town, working shoulder to shoulder with his friends, Percival and Barnes, and the other medical men. Chief amongst these movements were the institution of the College for Arts and Sciences, the formation of the Board of Health, and foundation of a fever hospital, and the factory movement for restricting the hours of work of the mill hands, especially of the children.

Henry read a paper at the meeting, in 1796, at which were discussed the objects of the Board of Health. He devoted his remarks to the subject of ventilation, especially in the cotton mills, and of the poisonous effects of air vitiated by respiration and not renewed by ventilation. He suggested a process for driving "pure or vital air" into the mills by heating in an iron vessel, of appropriate size, some manganese, and

conducting the oxygen from the vessel through pipes to the various parts of the mill. This plan was proposed because it was believed that cold air entering the mill would have a bad effect on the spinning, a high temperature being thought necessary for the process. No use was made of Henry's suggestion.

The enumeration of the population of Manchester and Salford, made in 1773, was suggested by, and carried out at the private expense of several gentlemen interested in the subject, many afterwards being members of the Literary and Philosophical Society. Henry and Percival were movers in this, and both wrote important and able papers on the results of the census, which prepared the ground for the establishment of the Board of Health.

Thomas Henry was only a visiting apothecary to the Infirmary, but the profession of apothecary was a peculiar one in those days, and so closely associated with that of medicine that a few words on the subject will be of interest here.

At the time of the founding of the Infirmary the medical profession was divided into apothecaries, physicians, and surgeons, but a peculiarly intimate connection existed between the first and the second groups.

On the knowledge, skill, and fidelity of the apothecary depended in a very considerable degree the reputation, the success, and the usefulness of the physician. The apothecary was in almost every instance the precursor of the physician, though he only treated the slighter ailments. He it was who generally suggested the advisability of calling in a physician, and as a rule named the one he thought best for the case, and then they both consulted on it. When the treatment to be adopted was decided on, the apothecary saw that it was carried out and dispensed the necessary medicines. Further visits of the physician could be made without the attendance of the apothecary, but Percival advised that the physician should meet the latter from time to time in further consultation.

In the country the apothecaries were the "guardians of health" over large districts. They were the physicians of the poor in all cases, and of the rich when the distress or danger was not very great.

Percival discouraged the practices adopted by some of the faculty in sending prescriptions to a druggist instead of acting with an apothecary, and of receiving an annual stipend, usually degrading in amount and in the services it imposed, for being consulted on the

slighter indispositions to which all families are incident, and which properly fall within the province of the apothecary.

Physicians were sometimes requested to visit the patients of an apothecary in his absence, but Percival considered it advisable for the interest and honour of the faculty to refuse such a request, saying that "Physicians were the only proper substitutes for physicians, surgeons for surgeons, and apothecaries for apothecaries."

The physician was evidently a more highly educated man than the apothecary, "who will regard the free communication of the physician as a privilege and means of improvement," and Percival suggested that when a physician met an apothecary, especially in the country, no opportunities should be neglected of promoting his improvement, or contributing to his stock of knowledge, either by the loan of books, the direction of his studies, or by unreserved information on medical subjects. In London the law enjoined at one time a stated examination, by the physicians, of the simple and compound medicines kept in the apothecaries' shops.

Apothecaries in England served an apprenticeship of five years, and were required by law to attend

lectures, on materia medica, one course, and on the practice of physic and the anatomy and physiology of the viscera, each two courses; the medical practice of a dispensary, infirmary, or hospital in town or country, during or subsequent to apprenticeship, six months; and to undergo an examination at Apothecaries Hall for a licence to practice.

A variety of apothecaries was the apothecary-surgeon, who was much despised by ordinary surgeons, one of whom in a note to the second edition of Percival's "Ethics" says, amongst other sarcastic remarks, of this class:—"He is a bone-setter, and contrives a reduction of from three to six inches in the longitude of an extremity. He leaves dislocated shoulders in the axilla. . . . In fact, taking care not to burn his fingers with operations which require art, he strips the surgeon of what is called 'common-sense surgery.' In physic, he too often limits his own diagnosis to 'the bile' and his practice to the panaceal exhibition of mercury." It need hardly be pointed out that none of these criticisms must be taken as applying to Mr. Henry, who was a man of great ability, and deservedly high repute.

Dr. Dover writing in 1762, thus refers to the apothecary:—"The amount of apothecaries' charges

and the mode of remunerating themselves are frequently great abuses in this country. The consulting surgeon is generally to be had at less expense than the apothecary, for we have known three fees and a few prescriptions made up at the retail druggists determine a case which, when one of the same nature and occupying the same time, in a former instance had cost the same individual £15 under an apothecary."

There was evidently much friction at times between the apothecaries and the physicians. Dr. Dover who was accused by the apothecaries in London of killing three noble patients whom he never attended, thus accounted for their slander towards him:—"I never offended any apothecary, unless ordering too little physic and curing a patient too soon is, in their way of thinking, an unpardonable crime. I must confess I could never bring an apothecary's bill to £3 in a fever, whereas I have known some of their bills in this disease amount to £40, £50, and £60."

The expression "Apothecaries' profit" was used in Percival's days to denote something uncommonly extravagant. Adam Smith in his "Wealth of Nations" (bk. 1, ch. 10, pt. 1) refers to it and defends the

apothecaries. He points out that even if it be true that the whole stock of drugs used in a year by an apothecary, in a large market town, cost but thirty or forty pounds, he was justified in charging three or four hundred or even a thousand per cent. profit on them, as the only way he was remunerated for the trust placed in him and for his skill was by charging for the medicines he supplied. Therefore, he said, this great apparent profit was no more than the reasonable wages of labour.

Henry died in June, 1816, aged 81, and was buried at Cross Street Chapel.

His son, William, was Honorary Physician to the Infirmary from 1808—1817.

There is a portrait of him at the rooms of the Literary and Philosophical Society.

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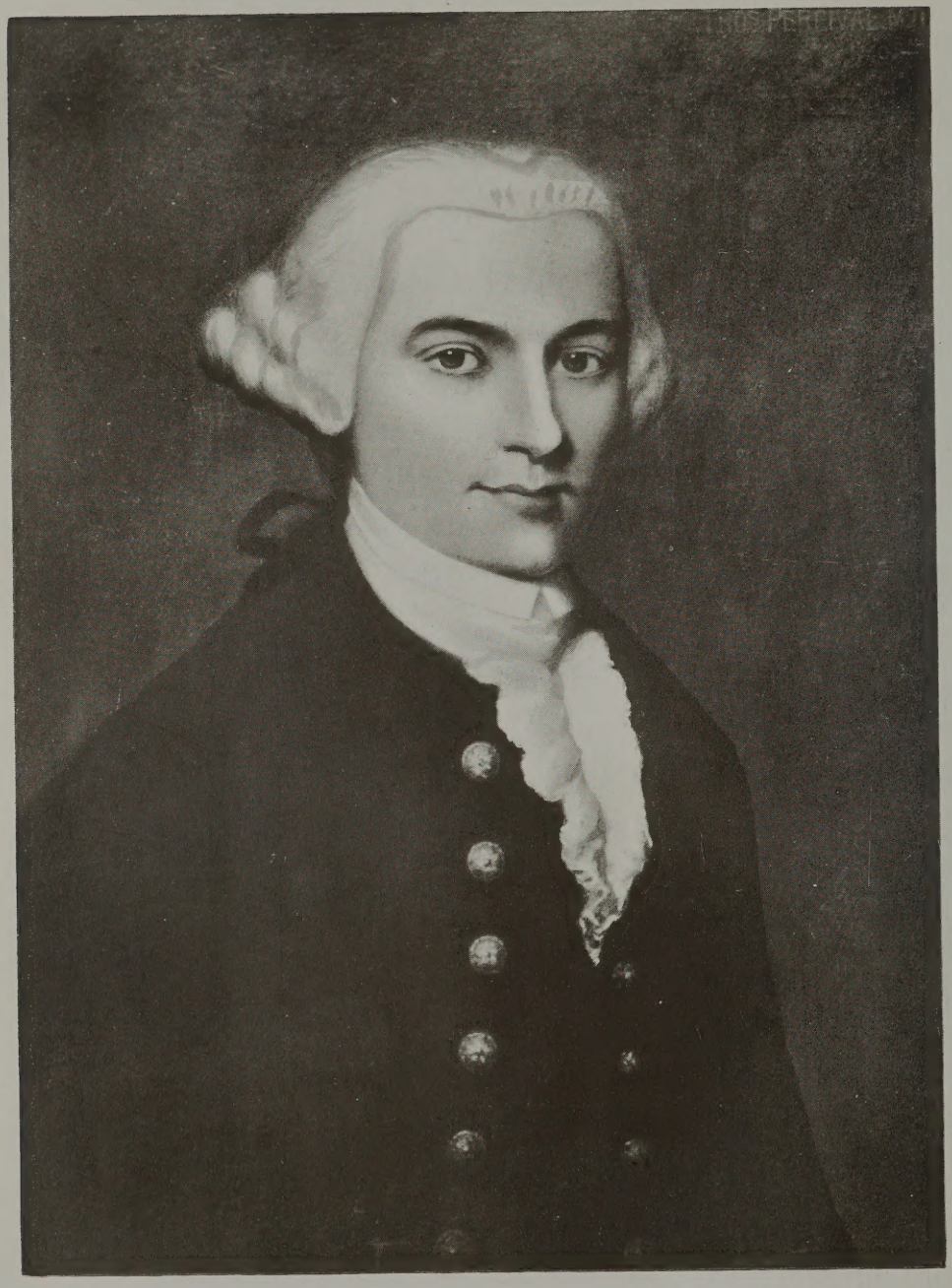


THOMAS PERCIVAL.

THOMAS PERCIVAL, M.D., F.R.S.

Honorary Physician to the Infirmary, 1779 to 1780.
Physician Extraordinary, 1782 to 1804.

THOMAS PERCIVAL, a most interesting figure in the medical history of Manchester, was the son of Joseph Percival, a merchant, and was born at Warrington on September 29th, 1740. His grandfather and an uncle were physicians. Both his parents died within a few hours of each other and were buried together when he was three years old. Percival was brought up by an elder sister. On October 24th, 1751, he was entered as a scholar at the Manchester Grammar School but he did not remain there long, removing on account of delicate health to Warrington. He then went to the Free Grammar School of that town until 1757, when he entered the newly founded Academy as the first student under Dr. Aikin. As a student he acquired a high reputation for diligence in classical and theological studies.

When ten years old his uncle Thomas, the doctor, died, and left to young Percival his valuable library

and a moderate competency, legacies which probably had some influence in determining a choice of profession.

In 1761 Percival went to Edinburgh to study medicine. He had intended entering either at Oxford or Cambridge, but could not subscribe to the Thirty-nine Articles which was then obligatory on all matriculating at these universities.

During his career as a medical student he spent a year in London, and there formed a close acquaintanceship with Lord Willoughby de Parham, to whom he was introduced by their common friend the Rev. John Seddon, of Warrington. Whilst in London Percival spent most of his time with Lord Willoughby, meeting at his house many of the eminent scientific and literary men of the day, and forming with them an acquaintance which he kept up by correspondence in after years. Lord Willoughby de Parham became Percival's warm friend and patron, recommending him for election to the Fellowship of the Royal Society, an honour which was voted Percival in 1765, on account of his "mathematical and philosphical learning."

In 1765 he proceeded to Leyden, then a university of great repute in the medical world, where he obtained his degree of Doctor in Medicine with a

dissertation de Frigore, and visited Paris and Hamburg on his way home. He then began to practice his profession in Warrington, and married at this time Elizabeth, daughter of Nathaniel Bassnett, a merchant, of Liverpool and London.

At one time Percival thought of settling in London to be near his friend Lord Willoughby but the latter's death, amongst other reasons, caused the relinquishment of this idea.

In 1767 he migrated to Manchester, where he practiced as a physician, and published the first volume of his "Essays, medical and experimental." These essays attracted wide attention, and in 1773 he published a second volume of "Essays, medical, philosophical, and experimental." Percival endeavoured in these writings to "substitute cautious induction for the crude and contradictory speculations which prevailed among writers of the time." He was much gratified by the favourable reception which his essays received.

In 1775 the first three parts of "A father's instructions"—that is, letters and advice to young people—appeared, but the last part was not published until 1803. He also published a small work called "Moral tales, fables, and reflections," which were

short narratives, mostly original, designed to promote the love of virtue and a taste for knowledge in his children. This work enjoyed a general popularity for thirty years or more, and was translated into French and German. Both these books showed a close acquaintance with classical literature.

In 1778 he was elected as Physician to the Infirmary, but did not hold this office for long, resigning it in 1780. He was appointed Physician Extraordinary in 1782 and continued to take an active interest and to play a prominent part in the concerns of the hospital. He made a present of books to the library in 1782.

The reason why Percival retired from the Infirmary staff so soon was probably because he was troubled with weak eyesight, due, he thought, to reading so much in his carriage, and a constant liability to violent headaches. These complaints prevented him from writing or reading as much as was necessary to a man of his tastes and habits. He therefore engaged a young medical apprentice, as secretary, to read aloud to him, and conduct, after his dictation, the extensive correspondence which he maintained with eminent scientific and literary men. He directed the studies of these young secre-

taries, amongst whom were Edward Holme and William Henry, afterwards physicians to the Infirmary, and exerted a great influence for good on their mental development. William Henry afterwards spoke with grateful remembrance of Percival's varied and tasteful scholarship, of his enlarged philosophy, pure and elevated moral bearing, and of the great influence which his character exerted on the young students with whom he came in contact.

It seems very probable that Percival's headaches were due to astigmatic vision, which the optical knowledge of his day would not diagnose, let alone correct with suitable glasses.

In 1771, in a letter addressed to a friend, he first expressed collectively his views respecting the "Internal regulation of hospitals," and in 1792 he composed, at the request of the physicians and surgeons of the Infirmary, "A scheme of professional conduct relative to hospitals and other medical charities," and the substance of this scheme constituted for a time the code of laws by which the practice of that "comprehensive institution," the Infirmary, was governed. Percival was afterwards induced, he tells us, "by an earnest desire to promote the honour and advancement of his profession, to enlarge the plan of his undertaking,

and to frame a general system of medical ethics, that the official conduct and mutual intercourse of the faculty might be regulated by precise and acknowledged principles of urbanity and rectitude." In this way the celebrated "Medical Ethics" originated, the first chapter containing the code of ethics for the Infirmary. The full title of the book is "Medical ethics, or a code of institutes and precepts adapted to the professional conduct of physicians and surgeons." A printed copy was circulated privately in 1794, and, with the criticisms of his friends, the work was added to and amended, and published in Manchester, in February, 1803. It is said that the rules of conduct laid down for medical men are a reflection of Percival's own character, which one of his younger friends, Dr. William Henry, described as "an illustrious pattern of everything delicate and pure in sentiment." Henry further wrote that Percival "was elegant and dignified in taste and polished in address and manner; a man who while he would have adorned a court by his gentlemanly demeanour, yet paid a tender and unceasing attention to the feelings of the humblest of those by whom he was habitually surrounded."

We may quote here a couple of paragraphs from

the Infirmary code which are most interesting at the present day :—

"As a hospital is the best school for practical surgery, it would be liberal and beneficial to invite in rotation two surgeons of the town, who do not belong to the institution, to be present at each operation." Apprentices or students were at this time taught at the hospital, but they were only few in number. The other extract is more striking to us of the chloroform era :—"A decorous silence ought to be observed [in the operating theatre]. It may be humane and salutary, however, for one of the attending physicians or surgeons to speak occasionally to the patient, to comfort him under his sufferings, and to give him assurance (if consistent with truth) that the operation goes on well, and promises a speedy and successful termination." One hundred years old though it be, much of Percival's code is fitted for the present day, and all of it could be read with much pleasure and profit by us.

The second edition of the Ethics, published in 1827 by an anonymous editor, probably a surgeon, is interesting, inasmuch as it contains in the form of editorial notes much curious information concerning the history of the profession and its condition in the

eighteenth and the beginning of the last centuries, and also an attack on those "diploma mongering" and "superannuated institutions" the Colleges of Physicians in London and Dublin. As it was the principal object with the author of "Medical Ethics" "to trace what sort of character a physician *ought to be*," the editor of the second edition thought he would assist in this by painting what sort of a character he *ought not to be*, and he accordingly attacks the physicians of his day very vigorously for their many shortcomings, calling them quacks, curemongers and other uncomplimentary names, although he is careful to except Percival and physicians of his type, of whom there were but few, from his strictures. One grievance the editor had against the London college was that it did not vote Percival the Fellowship at a time when he was desirous of it. This second edition is well worth perusal by the modern medical man.

The third and last edition of the work was published in 1849, and edited by Dr. Greenhill, of Oxford.

The "Code of Ethics" of the American Medical Association drawn up before 1849, was based on Percival's work, and many of the phrases in it were those used in the original edition of the latter.

The edition printed in 1794 for private circulation

and criticism is now scarce, but copies are in the libraries of the Manchester Medical Society and of the Manchester Royal Infirmary. In the Infirmary copy is the following note in Percival's own handwriting at the beginning of the book:—"The completion of the 'Medical Jurisprudence' [as Percival proposed to call the work until his friends persuaded him that 'Medical Ethics' was more suitable] has been long suspended, and it is uncertain when the undertaking will be resumed. A title page, an introduction, a fifth and sixth section, and an appendix, containing notes and illustrations, are wanting to finish this little work. Manchester, March 17th, 1794." At the end of the book is another note:—"Two sections wanting. Section V. on the powers, privileges, honours, and emoluments of the faculty. Section VI. on the moral, religious and political character of physicians."

About 1770 Percival made important "Proposals for the establishment of more accurate and comprehensive Bills of Mortality in Manchester."

What he wanted preparing were:—

1. Tables of christenings, marriages, and burials to be kept in every place of worship in the town, and all reported to, and formed into one general bill quarterly or annually by the clerk of the parish church;

and it was important that all still-born children, or those which died before baptism, should be registered.

2. Table of the christenings giving the sex, and a table of the deaths stating the age, and whether the deaths were of single or married people. From this table he would prepare relative comparisons of the expectation of life between the two sexes.

3. The ages of the dead; under five to be specified by single years, and afterwards by periods of five or ten years.

4. A list of the diseases of which all died and also the number dying of each disease in the several divisions of life, age, and season of the year. To enable this table to be produced the apothecary, surgeon, or physician in attendance should be desired to certify in writing the age and distemper of the deceased.

Percival argued that by such bills it would be possible to ascertain with tolerable precision the increase or decrease of certain diseases; the comparative healthiness of different situations, climates, and seasons; and the influence of particular trades and manufactures on longevity.

Some of these suggestions were adopted and afforded much valuable information to the statisician.

In 1773 Percival and others interested in the subject

subscribed together to defray the cost of an "Enumeration of the population of Manchester and Salford," and the same year he communicated to the Royal Society "Some observations on the state of the population in Manchester and other adjacent places," and next year some "Further observations" on the same subject. The criticism and statistical examination of the census returns in these papers is extremely able, and many of the pit-falls into which the superficial statistician may be led are pointed out. The papers mark a decided step onwards in the science of vital statistics.

To Percival, Thomas Henry and the Rev. Dr. Barnes was due the conception and foundation of the Manchester Literary and Philosophical Society. The Rev. Thomas Barnes, D.D., was a native of Warrington, and a fellow student of Percival's. He came to Manchester in 1780, as minister of the Cross Street Chapel, and was afterwards Professor of Divinity in the Manchester Academy, a college for clergymen and laymen conducted on Unitarian principles, which was originally at Warrington. Dr. Barnes also advocated, with Percival's support, the establishment in Manchester of a "College of Arts and Sciences," and in the foundation of this institution he was greatly aided by Percival

and Henry. The College was intended as a means of supplying education for youths after they left school and before they went into business. Public lectures were given under its auspices in the belles lettres, the various branches of science, and also in anatomy and physiology, the latter lectures being delivered by the Whites. From certain causes, "among which may be numbered a superstitious fear of the tendency of a taste for knowledge to unfit young men for ordinary business," this excellent institution had not a long lease of life. The Literary and Philosophical Society had a better fate, and lives an active, valuable and honoured existence at the present day. It was first formally constituted in 1781, but for some years before this time, meetings for "conversation" on scientific and philosophical subjects used to be held weekly in Percival's house. As the fame of these meetings spread so many men desired to join them that they were obliged to be held in the Assembly tavern, and finally in the society's own rooms. The medical men of the town were very prominent in their support of the society, thirteen of the twenty-four founders being of the faculty, and of the first fifty-five papers read before it twenty-three were contributed by them. This number is exclusive of

nine papers read by Thomas Henry, Apothecary to the Infirmary, who was practically a medical man.

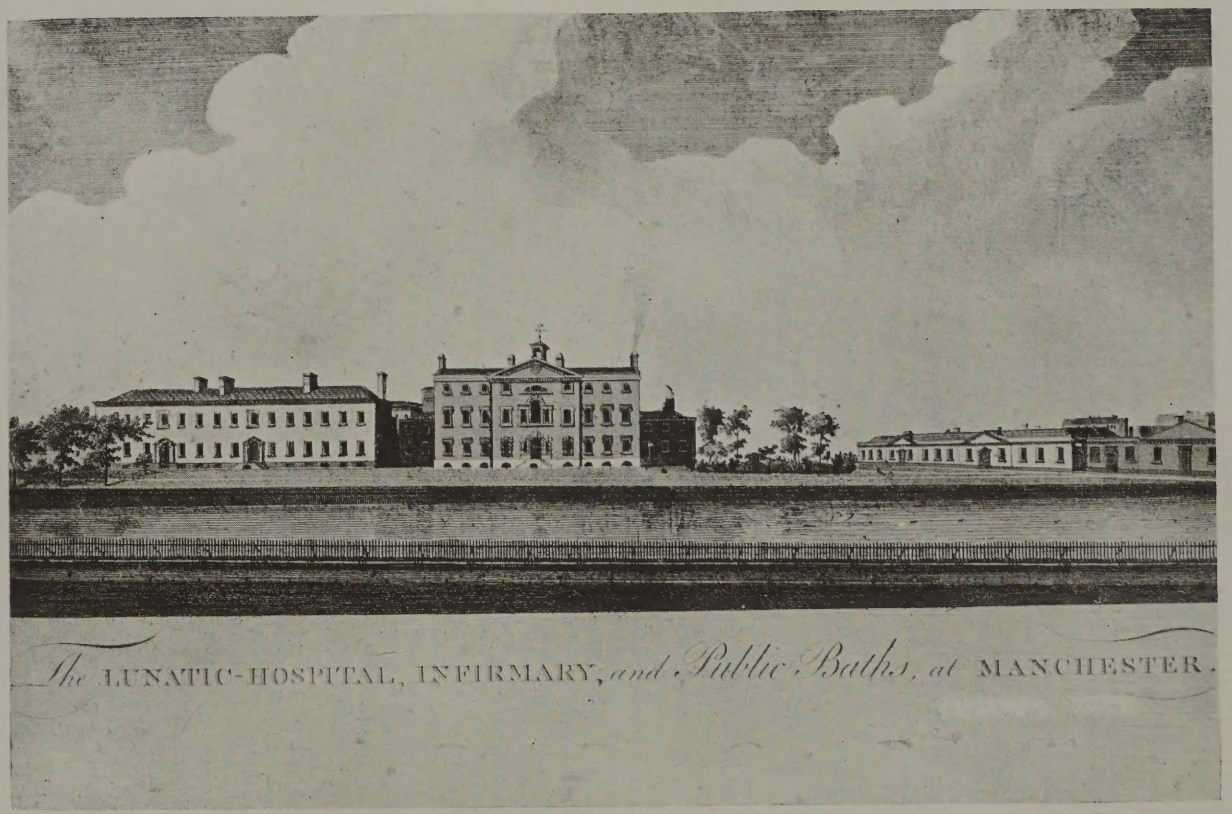
This state of things continued for the first fifty years of the Literary and Philosophical Society's existence, that is, until after the foundation of the Manchester Medical Society, in 1834, when the membership of the medical men and their communications fell off greatly, and ceased almost entirely about the year 1850. It seems regrettable that the important support of the medical profession in the town should have been withdrawn from a society which had done so much in its time for the furtherance of knowledge, but it cannot be wondered at, as there are so many obvious objections to the reading or discussion of papers on purely medical subjects before a mixed audience containing so many non-medical members. When the Literary and Philosophical Society was founded it was quite common for medical men to discuss their cases, and argue about them in public, either in the newspapers or by printed pamphlets, which were freely circulated amongst the laity. So it was not unnatural for a physician or surgeon wishing to relate his researches or observations on professional topics to do so before the Literary and Philosophical Society, which then

had so many doctors amongst its members. But as time went on a more reserved feeling developed, and when the Medical Society was founded it was recognized as the only proper gathering at which purely professional topics should be discussed.

The first presidents of the Literary and Philosophical Society were Dr. Mainwaring, then perhaps the oldest physician in the town, and Mr. James Massey. They held office for a year only, then Percival and Mr. Massey were joint presidents for the next five years, and after an interval of three years, during which Mr. Massey reigned alone, Percival was elected sole president in 1789, and continued to hold this office until his death in 1804.

The various papers read before the society were published as "Memoirs," and Percival communicated nine of the first fifty-five.

In 1796 Percival took a prominent part in the movement which was first publicly suggested by Ferriar in 1792 to form fever hospitals in the town, and to request the Committee of the Police to exert a supervision over the lodging-houses, the hotbeds of infection, and to take proper measures for disinfecting the houses in which cases of fever occurred. As a result of the efforts of Ferriar (q.v.), his colleagues



THE INFIRMARY LUNATIC HOSPITAL AND PUBLIC BATHS, 1784.

on the Infirmary staff, and of Percival, aided by influential townsmen, a Board of Health was formed and a fever hospital or "House of Recovery," as it was called, was opened on the Infirmary property in 1796. This was not carried out without great opposition from other medical men led by Charles White, and equally prominent townspeople, including Sir John Parker Mosley, the Lord of the Manor, and owner of much of the land adjoining the site of the proposed fever ward.

But the reformers carried the day, and their success was greatly due to the enlightened support of Percival, and to the strong influence which his personal authority had over the townspeople.

At a meeting of the Board of Health on January 25th, 1796, Percival directed public attention to the conditions of employment of the operatives in the cotton mills, and proposed an "application for Parliamentary aid (if other methods appear not likely to effect the purpose) to establish a general system of laws, for the wise, humane, and *equal* government of all such works."

He pointed out that many cotton mills were in a most insanitary condition, and not only fostered the propagation of infectious diseases when such were

about, but were also generally injurious to the constitutions of those employed in them from the debilitating effects of hot and impure air, which resulted from deficient ventilation and from the custom of working day and night. The children suffered most, especially from the night labour, and often became weakened in health throughout their lives, which were shortened in consequence of their hard work at an early age; and their parents were encouraged to idleness themselves by the earnings of their offspring. The children also were generally debarred from all opportunities of education and from moral and religious instruction. In some mills which were better managed many of these evils were to a considerable degree obviated. In "The History of the Factory Movement," by "Alfred," Percival's influence on this question is thus summarised:—"The heads of the resolutions [read before the Board of Health and abstracted above] are important; they are in themselves a condensation of the evils of the factory system. They raised the question of the factory regulation in Manchester, and the conditions under which factory regulation by Act of Parliament was rendered necessary were, in the resolutions of Dr. Percival, clearly laid down. The

evils of the factory system thus became subjects of popular discussion and began to command the attention of the Imperial Parliament."

An interesting paper by Percival is one on "Observations on the medicinal uses of the *Oleum jecoris aselli*, or cod liver oil, in the chronic rheumatism and other painful disorders" (Vol. II., Fourth Edition, Essays, etc., p. 354). Percival trusted that he would be doing a service to the healing art in communicating to the public a brief account of this medicine, the salutary properties of which were, he believed, little known beyond the vicinage of Manchester. He strongly recommended it for obstinate chronic rheumatisms, sciaticas of long standing, and in those cases of premature decrepitude which originate from immoderate labour, repeated strains and bruises, or exposure to continual dampness or cold. Whilst he was a physician to the Infirmary he had the fullest evidence of the successful exhibition of cod liver oil in maladies of the above nature which had resisted other powerful modes of treatment. He frequently compared its operations with other drugs by prescribing them, at the same time, to different patients in similar circumstances, and these trials always terminated in favour of the oil. Patients used to ask for the oil in spite of

its flavour, which was so objectionable that the drug could not be used in private. The dose given was one to three tablespoonfuls two or four times daily. In a few weeks the appetite became affected by the oil, the tongue grew foul, and an emetic became necessary. A letter from Dr. Robert Darby on the subject is quoted, and Percival strongly recommends the oil for use in hospitals, dispensaries, and parish workhouses. The oil came from Newfoundland, and evidently was rather strong in flavour. Percival suggested that it should be prescribed in the following way as being thus made much less offensive to take :—

R. Ol. Jecoris Aselli. ʒi.
Aq. Menth. Pip. Simp. ʒss.
Lixiv. Sapon. gutt. xi.
Misce. fiat Haustus.

By this combination a liquid soap, not very unpleasant, was produced, and the oil could be liberated in the stomach by drinking some lemon juice immediately after the draught was swallowed. Lixivium saponarum was an older term for a solution of carbonate of potash, and by its use one form of emulsion of the oil was produced.

De Quincey, in his Autobiography, gives us an

interesting picture of Dr. Percival as he appeared to his contemporaries outside the medical profession: "Dr. Percival was a literary man of elegant tastes and philosophical habits. He had been a favoured correspondent of the most eminent Frenchmen at that time, who cultivated literature jointly with philosophy. Voltaire, Diderot, Maupertuis, Condorcet, with D'Alembert, had all treated him with distinction; and I have heard my mother say that, in days before I or my sister could have known him, he attempted vainly to interest her in these French luminaries by reading extracts of their frequent letters which, however, so far from reconciling her to the letters or to the writers of the letters, had the unhappy effect of rivetting her dislike (previously budding) to the doctor, as their receiver, and the *proneur* of their authors. The tone of the letters, hollow, insincere, and full of courtly civilities to Dr. Percival as a known friend of '*the tolerance*' (meaning of toleration) certainly was not adapted to the English taste; and in this respect was specially offensive to my mother, as always assuming of the doctor that by mere necessity, as being a philosopher, he must be an infidel. Dr. Percival left that question, I believe, *in medio*, neither assenting

nor denying; and, undoubtedly, there was no particular call upon him to publish his Confession of Faith before one who, in the midst of her rigorous politeness, suffered it to be transparent that she did not like him.

"It is always a pity to see anything lost or wasted especially love, and, therefore, it was no subject for lamentation that too probably the philosophic doctor did not enthusiastically like her. But if really so, that made no difference in his feelings towards my sister and myself. We he did like; and, as one proof of his regard, he presented us jointly with such of his works as could be supposed interesting to two young literati whose combined ages made no more at this period than a baker's dozen." De Quincey had forgotten the title of the book, but gives some account of a story from it. As De Quincey was born in 1785, Percival would at the period thus described have been about fifty years old.

The philosophic doubts that Mrs. De Quincey objected to in the doctor would probably be the views he held as a member of the Unitarian sect, but he never obtruded his religious opinions on people and never mentioned them in his writings.

Percival had always a large practice in Manchester and the surrounding districts. According to the old directories he was, in 1772, living at 63, King Street, and in 1797 and 1804 at 7, Mosley Street, but for many years he had a summer house at Harthill, on the Eccles Old Road, three miles from Manchester.

At the beginning of the new century Percival's health, which was never robust, but debilitated by his constantly recurring headaches, began to show signs of more complete failure, and in the preface to his work on "Medical Ethics," published in 1803, he remarked that he was beginning to experience the pressure of advancing years, and that he regarded that publication as "the conclusion, in this way," of his professional labours.

He died on August 30th, 1804, in the 64th year of his age, and was buried in the graveyard of the Parish Church of Warrington, a monument, with an inscription in Latin, being placed within the Church. A mural tablet to his memory was also erected in the rooms of the Literary and Philosophical Society over the chair of the President. It bears the following inscription written by his friend Thomas Henry :—

This Tablet
is dedicated by the unanimous vote
of the Literary and Philosophical Society
of Manchester
to the Memory of
Thomas Percival, M.D., F.R.S., etc.,
one of the first Founders, and during twenty years
the revered President, of this Institution,
as a testimony of their grateful sense
of his Zeal in promoting their various interests;
of his frequent and valuable contributions
to their Memoirs;
of the Ability, Candour, and Urbanity
with which he directed their Discussions,
and of the elegant Manners,
virtuous Conduct, and Dignified Piety
by which his Life was eminently distinguished.
He died August 30th, 1804.

The testimony of the Rev. William Magee, afterwards Archbishop of Dublin, to the merits of his late friend and relative, was expressed in the Gentleman's Magazine for the year 1804, and from it the following quaint but striking summary of Percival's many virtues is taken:—"He was an Author without vanity, a Philosopher without pride, a Scholar without

pedantry, a Student without seclusion, a Moralist without moroseness, a Patriot without faction, and a Christian without guile. The great object of his life was *usefulness*, and the grand spring of all his actions was Religion."

There is a portrait in oils of Percival at the rooms of the Literary and Philosophical Society, which is an enlargement recently painted from a miniature on a bracelet in the possession of the family, and in Kendrick's "Warrington Worthies" there is a silhouette portrait of Percival at probably a later age.

Dr. Percival had several children, sons and daughters. One of the sons, Edward Cropper, entered the medical profession, and edited an edition of his father's works. He lived to be thirty-six only. A grandson of Percival's youngest son is in the profession at the present day. Ann, Percival's eldest daughter, married Nathaniel Heywood, a banker in the town. Their eldest son, Benjamin, was created a Baronet in 1838, and his children have been too well known and respected in Manchester to need mentioning individually here.

Percival's moral and literary dissertations are described by one critic as having rarely been surpassed by any didactic composition of a similar extent for

genuine feeling, refined taste, purity of style, or aptness of illustration.

The medical observations appear to the present day reader to have been conceived and carried out in a thoroughly scientific spirit. Numerous experiments were devised to bring evidence for or against a theory which Percival evolved, but their results were treated in a judicial spirit and not made to fit any preconceived requirements, or twisted about unfairly to bolster up an illogical argument. No very striking discoveries were, however, made, and Percival's best professional work was done in connection with public medicine.

Percival's writings were collected and published together in one edition by his son, Edward Percival, M.D., in 1807. The title page of the edition is "The Works, Literary, Moral, and Medical, of Thomas Percival, M.D., F.R.S., and A.S., F.R.S. and R.M.S. (Edin.), late President of the Literary and Philosophical Society at Manchester, member of the Royal Societies of Paris and of Lyons, and of the Medical Societies of London and of Aix en Provence, of the American Academy of Arts, etc., and of the American Philosophical Society at Philadelphia. To which are prefixed memoirs of his life and writings and a selection from his literary correspondence."

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JOHN WRIGHT, M.D.

Honorary Physician to the Infirmary, 1780 to 1782.

JOHN WRIGHT was an army surgeon before he came to Manchester, being attached to H.M. 30th Regiment of Foot from 1756—1766, and seeing service then in the Spanish war.

He was appointed Honorary Physician in 1780 on the resignation of Dr. Percival, and in 1781 formed one of the band of men who founded the Literary and Philosophical Society, reading before it a paper with the title, "A moral essay on the advantages which may result from the institution and well regulated support of the Literary and Philosophical Society."

Soon after joining the Infirmary staff he brought some charges against Mr. Darbey (q.v.) who had been resident Apothecary to the hospital for fifteen years, and these, with depreciatory criticisms on the hospital management, he circulated in a pamphlet entitled, "An appeal to the public." The charges were trivial and unfounded, and Darbey replied to them in another pamphlet entitled, "A letter addressed to the Trustees of the Manchester Infirmary, containing a vindication of the author from the aspersions

cast upon him by Dr. Wright in a pamphlet entitled, 'An appeal to the public.'" The Trustees and the Medical Board of the Infirmary took the matter up, and as both bodies agreed that Dr. Wright's pamphlet was calculated to injure the interests of the charity, the Trustees, dispensed with his further services on the staff.

After leaving the Infirmary he evidently stayed in the district for a while, and in 1785 published a pamphlet entitled, "An address to the Members of both Houses of Parliament on the late tax laid on fustian, and other cotton goods, etc."

Nothing further has been found concerning Dr. Wright until he published "An essay on wines, especially on port wine, etc., 1795." This pamphlet is dated 61, Stanhope Street, Clare Market, London. A perusal of the essay shows that, although it begins with instructions as to the best way to distinguish good and pure wines and tells how they may be useful or otherwise in health or disease, it ends by being neither more nor less than a trade advertisement, and one is obliged to infer that the doctor had gone into the wine trade.

REFERENCES.

Wright's own writings; Darbey's Pamphlet; Renaud's Short History.

JOHN COWLING, M.D.

Honorary Physician to the Infirmary, 1782 to 1790.

JOHN COWLING was possibly educated at Edinburgh, for a man of this name graduated there in 1768, with a thesis entitled "de Hypochondriasi."

In 1781 Cowling was appointed to visit the patients of the Infirmary, at their homes, at the discretion of the honorary physicians of the Infirmary.

In 1788 he objected, with the two Whites and the two Halls and Dr. Eason, to the proposal of the Trustees to increase the staff of the Infirmary, as he and his colleagues considered such to be unnecessary, and also an undeserved reflection on the way they had carried out their duties.

In 1789 Cowling and Eason resigned their duties of visiting the home patients, but they continued to be honorary physicians to the Infirmary.

In 1790 the matter of the increase of the staff came up again on the Trustees proposing definitely to make the number of honorary physicians and

surgeons into six of each, and as the proposal was carried, all the physicians and surgeons resigned.

In 1796, with Charles White (q.v.) and other medical men, he opposed the establishment of fever wards in Portland Street.

In 1797 Cowling was living at 14, Faulkner Street.

References.

Harrop's Manchester Mercury, 1796; Renaud's Short History.

ALEXANDER EASON, M.D.

Honorary Physician to the Infirmary, 1782 to 1790.

ALEXANDER EASON was born 1735, of Scottish descent. His father was George Eason. He himself married a Miss Aytoun, of Inchdairnie, Fife.

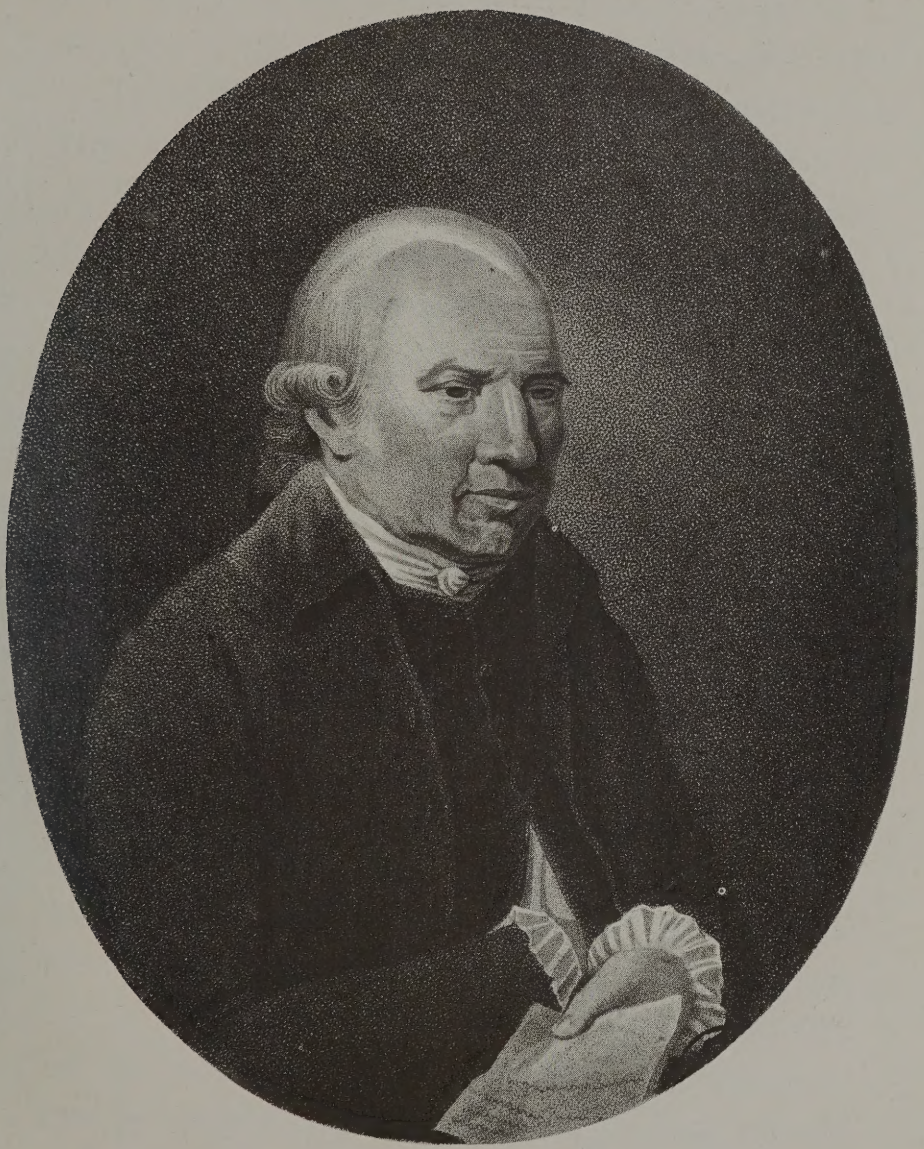
In early life Eason travelled on the continent with Lord Moira, and for a time was Surgeon to the Marquis of Drogheda's Dragoons.

I have not been able to trace his graduation thesis in any of the universities at which his contemporaries studied.

In 1871 he was appointed as one of the physicians to visit infectious cases in the Infirmary districts in their own homes, there being no hospital accommodation for fever cases in Manchester then. These home patient physicians were employed at the discretion of the physicians of the Infirmary.

In 1782 he was appointed Physician to the Infirmary, and continued his home visiting as well until 1788 when he gave this up.

In 1790 he resigned his post at the Infirmary



ALEXANDER EASON.

with all his colleagues, as a protest against the increase of the honorary staff of the hospital.

In 1796 he opposed the proposal to establish a fever ward on the Infirmary land.

He lived in Lever Row (Piccadilly), next to the White Bear Inn, and died on May 27th, 1796, aged 61, at a patient's house. He was riding out to visit Mrs. Yates—an aunt of Sir Robert Peel's—at Clugh, and on the way his horse put its foot into a hole and caused a sudden effort on Dr. Eason's part, which broke or dislocated the spine near the neck. He lay paralysed for two weeks before he died.

He gave much of his time to attending the poor of the town, and when he died his funeral was largely attended by them, and a tablet to his memory, the proceeds of a penny subscription, was placed in the Collegiate Church, where he is buried. The inscription reads:—

"Here lieth the remains of Alexander Eason, M.D., who died on the 27th day of May, 1796, in the 61st year of his life; lamented sincerely by all; but especially by the poor; he was their Physician and their FRIEND."

His daughter Barbara married Thomas Wilkinson, and their son, Dr. Matthew Eason Wilkinson, was

appointed Honorary Physician to the Infirmary in 1844. Eason was one of the founders of the Literary and Philosophical Society, and a vice-president from 1781 to 1784. He read five papers on scientific subjects before it, two, namely, "Observations on Mr. Norris's account of the Harmattan," and "On the use of patents," before the Memoirs were published.

REFERENCES.

Angus Smith's Centenary of Science; Hibbert Ware's Foundations; Harrop's Manchester Mercury, 1796.

GEORGE BELL, M.D.

Honorary Physician to the Infirmary, 1782 to 1784.

GEORGE BELL was born in Dumfriesshire, in the autumn of 1755. He was educated at Glasgow and at Edinburgh, obtaining his degree of doctor at the latter university in 1777, with a dissertation "de Physiologia plantarum," a translation of which appears in the Memoirs of the Literary and Philosophical Society, Vol. II., p. 410. Soon afterwards he went to London and Paris, returning to Scotland in 1778, and commencing to practice at Berwick-on-Tweed in 1780. Next year he removed to Manchester.

In 1781 he was elected as an assistant physician to the Infirmary, visiting some of the home-patients, and became Physician in 1782.

In 1783 Bell proposed that a collection of medicinal plants should be made in the Infirmary garden, the utility of such a collection being in his opinion obvious. He said that they could supply the apothecary's shop at the Infirmary with the various samples consumed there ; that the collection would make the medicinal herbs better known to the

students, and that the study of medicine generally would be benefitted by the investigation of the new plants. The Trustees of the Infirmary, to whom this suggestion was made, approved of it, and allocated a portion of the kitchen garden for the purpose, and appointed Dr. Bell to superintend the carrying out of the scheme. But this resolution of the September quarterly meeting of the Trustees was not confirmed by the December meeting, and the scheme fell through.

The only paper written by Bell that I have found is one entitled "Some remarks on the opinion that the animal body possesses the power of generating cold," which was read before the Literary and Philosophical Society (Memoirs, Vol. I., 1789).

Bell died in April, 1784.

His friend Dr. Currie wrote of him, in the Memoirs of the Literary and Philosophical Society:—

"From his cradle to his grave he perhaps never, on any one occasion, sacrificed reality to appearances, or courted applause from others which was not justified by the approbation of his own heart. He had a contempt of appearances, and was not sufficiently attentive to the decorum of manners. Free from affectation himself, he would never allow

it to pass unnoticed in others, even in those for whom he entertained the highest esteem." This outspokenness evidently offended people, "but in the more intimate relations of life he was greatly beloved, and through the whole of his conduct there was seen a strain of manly sincerity.

"He was a very learned man, not only in his own profession, but in classical, in which he had few equals, and in historical and philosophical knowledge, in which he had not many superiors. But though he acquired information with remarkable facility, he did not communicate it with equal ease. This was chiefly owing to early habits of verbal and grammatical criticism, in which he greatly indulged. He was extremely nice in his choice of words—he would use no expressions that were not exactly fitted to his ideas, and in his dislike of everything strained or affected, he had declared war against some of the natural ornaments of speech."

His temper was so open, and his conduct so little affected by the opinions or prejudices of others, that he evidently did not attain that measure of success in life which his friend thought his due.

REFERENCES.

Memoir by Dr. Currie, Mem. Lit. and Phil. Soc,, Vol. II., p. 397, 1783; Renaud's Short History.

EDWOOD CHORLEY, M.D.

Honorary Physician to the Infirmary, 1784.

EDWOOD CHORLEY was one of the family of the Chorleys, of Chorley, his father being Charles Chorley. His mother was a daughter and heiress of Joshua Toft, of Haregate, Staffordshire.

Edwood Chorley was born in 1757. He was a graduate of Leyden University, obtaining his degree of Doctor in 1781 with a thesis entitled "De plumbi in corpus humanum viribus."

The only other facts concerning him that I have been able to trace are that he was elected to the Infirmary staff in March, 1784, and resigned in December of the same year on going to live at Preston.

He was also one of the four physicians, the others being Percival, Cowling, and Eason, who, in 1784, investigated and reported on the causes of an outbreak of malignant fever which was supposed to have originated in the cotton mills at Radcliffe.

For this the magistrates of the County Palatine of Lancaster expressed their thanks, and ordered the report to be printed and distributed so that every part of the community should receive the benefit of the salutary admonitions in it.

REFERENCES.

Renaud's Short Hist.; Percival's Essays, Vol. II., p. 297; Foster's Lancashire Pedigrees.

JOHN LATHAM, M.A., M.D., F.L.S., F.R.S., P.R.C.P.

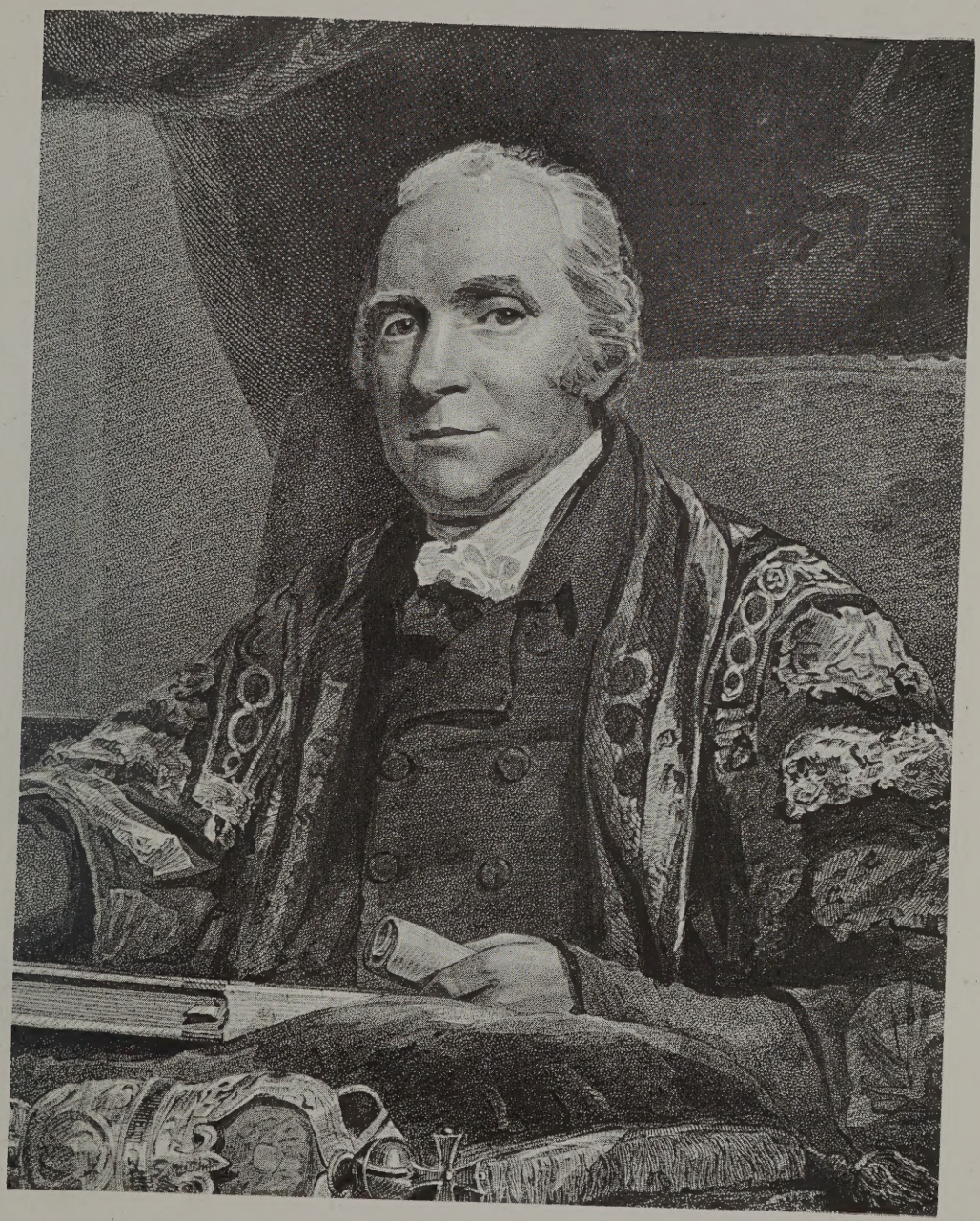
Honorary Physician to the Infirmary, 1784 to 1786.

JOHN LATHAM was the eldest son of the Rev. John Latham, of Siddington, Cheshire. He was born at Gawsworth, of which place his uncle was the rector, on December 29th, 1761.

He received his early education at the Manchester Grammar School, passing on thence to Brasenose College, Oxford, in 1778.

In 1782 he obtained his degree of Bachelor, and in 1784 of Master of Arts, and in the latter year having obtained from the University a "licence to practice medicine," he went to Manchester, where the same year he was appointed Physician to the Infirmary. He does not seem to have had a medical degree at this date.

He had intended originally to enter the church and only studied medicine with a view to the use it would be to him as clergyman in a country parish without medical aid close at hand. But he showed such special aptitude for his studies that he



JOHN LATHAM.

was advised to devote himself entirely to the medical profession and this he accordingly did.

He only remained in Manchester until 1786 when he resigned his post at the Infirmary, went back to Oxford and took his Bachelorship in Medicine. Next year he was appointed Physician to the Radcliffe Infirmary, Oxford, and in 1788 having obtained his degree of Doctor he moved on to London.

His exertions on getting to London were very great, and he soon obtained a large and lucrative practice. The appointment of Physician Extraordinary to the Prince of Wales in 1795 added to his reputation and work. In 1820 he held a similar position to the household of George IV.

His career in London is seen by the following events and dates.

In 1788 he was admitted a Candidate and in 1789 a Fellow of the Royal College of Physicians.

On October 15th of the latter year he was appointed Physician to the Middlesex Hospital, and to the Magdalen Hospital.

In 1793 he succeeded Dr. David Pitcairn as Physician to St. Bartholomew's Hospital, and resigned the similar post at the Middlesex Hospital.

In 1792 he began to rearrange the library at the Royal College of Physicians. He held the following offices in the college: Censor, 1790, 1794, 1801, 1803, 1807; Gulstonian Lecturer, 1793; Harveian Orator, 1794; Croonian Lecturer, 1795; Elect, 1806; President from 1813 to 1819 inclusive, that is for seven years.

The re-arranging of the library at the College of Physicians was a great piece of work. The books had fallen into great disorder, and when Latham had completed his re-arrangement of them, his colleagues voted him a donation of £100 as an appreciation of their value of his work.

In 1807, at the age of 46, he was worn out by the hard labour of his early success, and had an attack of hæmoptysis which gave rise to fears of consumption, and caused his retirement to Bradwell Hall, Elworth, in Cheshire, which estate he had purchased in 1801. Rest in the country, however, did him much good, and he returned to London again after some months, but to do only a restricted amount of practice.

In 1816 he founded the Medical Benevolent Society.

In 1829 he finally retired to Bradwell Hall,

where he died on April 20th, 1843, aged 82. He is buried at Sandbach, and the east window in the church there is to his memory.

The note on his life in the Roll of the College of Physicians concludes with the following lines:—

"The highest virtues of good men are unseen by the world while they live, and are kept for the solace and contemplation of their families when they die. More, therefore, need not be said of Dr. Latham, except that he was singularly temperate when temperance was hardly yet thought to be a virtue; he was most pure in life and conversation, when to have been otherwise would have provoked no censure; and he was not ashamed to be religious when religion had yet no recommendation or countenance from the world."

Another obituary notice by his son, Dr. P. M. Latham, says:—"His patients remember the confidence and encouragement which accompanied his address, his sincerity, his straightforwardness, and his liberality."

In 1784 he married Mary, the daughter of the Rev. Peter Mayer, Vicar of Prestbury, and had several children, the late Dr. Peter Mere Latham, Physician Extraordinary to Queen Victoria, being the second son.

He wrote several papers which were published in various journals, and which, as Dr. Norman Moore points out in the Dictionary of National Biography, were mostly founded on clinical observations and a close knowledge of the materia medica, though more extensively written pages are on "Rheumatism and gout," London, 1796; "Facts and observations concerning diabetes," London, 1811; and "A plan for a Charitable Institution to be established on the sea coast," London, 1791.

There is a portrait of Dr. Latham in his robes, with the insignia of office as President of the Royal College of Physicians, by Jackson, engraved by Sievier. The original is in the possession of the family, and a copy is at Brasenose College, Oxford. There is another portrait by Dance, engraved by W. Daniell.

REFERENCES.

Munk, Roll of the Royal College of Physicians, Vol. II., p. 340; Gent's Magazine, 1843, Vol. I., p. 660; Lond. Med. Gaz., 1843, Vol. I.; Man. School Register, Vol. I., p. 195; Ormerod's Cheshire, 2nd Ed., Vol. III., p. 114—116; Dict. Nat. Biog.; Private information supplied by A. M. Latham, Esq., Barrister-at-Law, London, great grandson; Callisen, Med. Schrift. Lex.

THOMAS WHITE, M.D.

Honorary Physician to the Infirmary, 1786 to 1790.

THOMAS WHITE, the second son of Charles White, was born 1763. He received his early education at the Manchester Grammar School, and his medical education at Edinburgh and London, and obtained his degree of Doctor at Leyden, with his "Dissertatio medica inauguralis de cynanche tracheali."

He assisted his father in the anatomical lectures which the latter delivered under the auspices of the Literary and Philosophical Society, in 1783.

In 1785 Charles White, after being 33 years a surgeon to the Infirmary, requested that his son should be appointed to assist him in the surgical department, and this was granted in June of the same year.

Thomas White was elected an honorary physician to the hospital in September of 1786, when Latham resigned.

In 1787 and 1788 he delivered public courses of lectures in his father's museum, on anatomy and physiology.

In 1790 he resigned his position at the Infimary as a protest against the increase of the staff which the Trustees decided on, and helped his father and the Halls to found the Lying-in Charity, to which he was appointed Man-midwife in ordinary. He gave a course of lectures on midwifery in connection with the charity—the first to be delivered in Manchester.

He died, June 19th, 1793, from the effects of a fall from his horse.

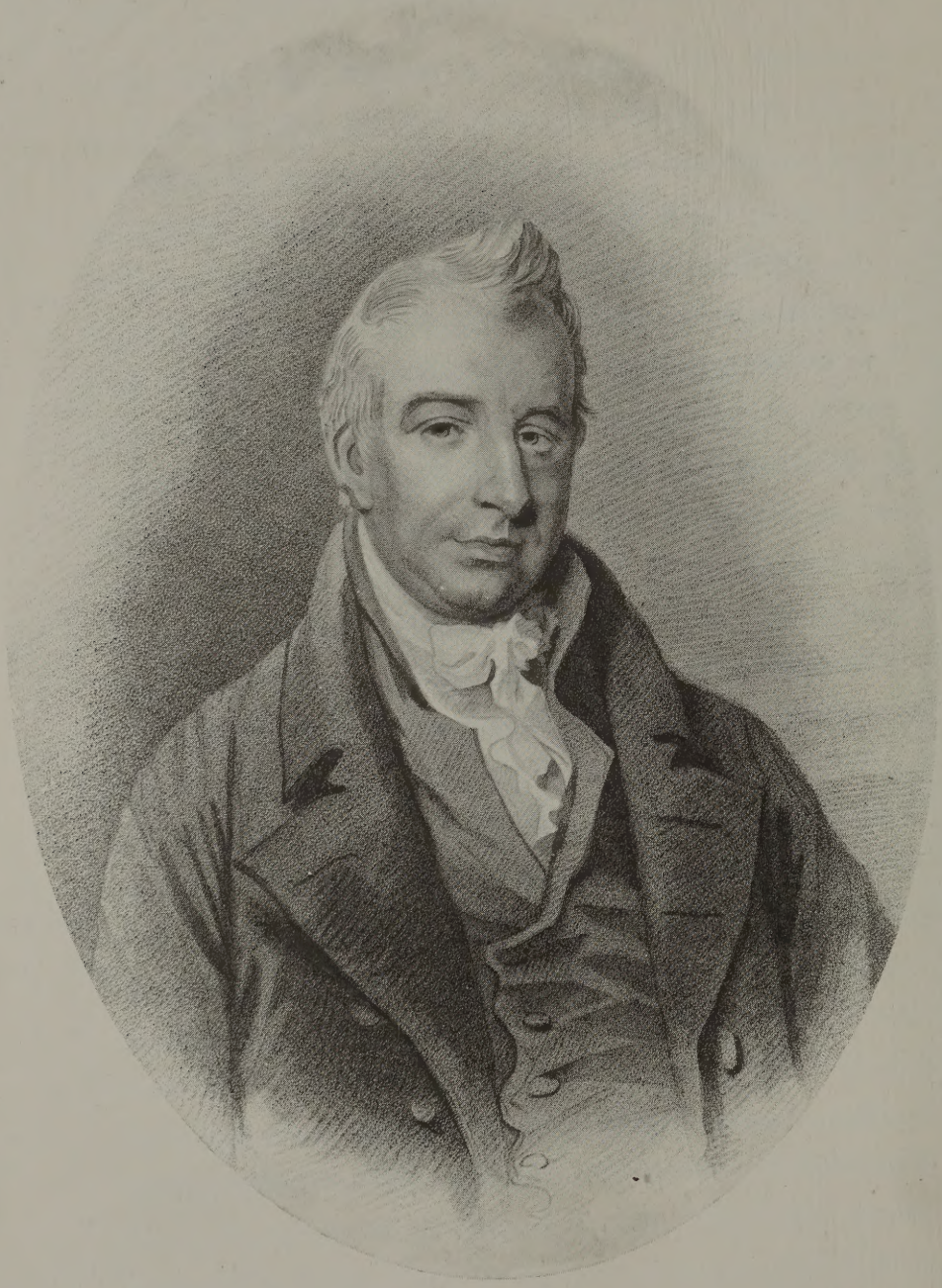
He married Francis, daughter of John Hague, of Park Hall, Hayfield. His son John, afterwards known as Captain White of Hayfield, and celebrated as a sportsman throughout Cheshire, died in 1866, aged 75, at Dalefords.

The only paper of Thomas White's extant is one on a non-medical subject :—"A short excursion through the subterranean cavern at Paris," in the Proceedings of the Literary and Philosophical Society.

Thomas White lived in Half-Moon Street.

REFERENCES.

Renaud's Short Hist.; Prefaces to Charles White's Writings; Manch. School Reg., Vol. I.; Many of the references to father and grandfather.



JOHN FERRIAR.

JOHN FERRIAR, M.D.

Honorary Physician to the Infirmary, 1790 to 1815.

JOHN FERRIAR, the son of the Rev. Alexander Ferriar (or Ferrier), was born at Oxnam, Roxburghshire, on November 21st, 1761.

He was educated at Edinburgh, where in 1781 he graduated as Doctor in Medicine, with a thesis "de Variola."

In 1782 he commenced practice at Stockton-on-Tees, and married Miss Barbara Gair, of Alnwick, the same year.

In 1785 he removed to Manchester, where he settled for the rest of his life. In Manchester he soon became an active and prominent member of the scientific and literary circles, and contributed a paper to the Literary and Philosophical Society, with the title "Of popular illusions, and particularly of medical demonology," in 1786. The same year he read another essay "On the dramatic writings of Massinger," and in 1787 one "On observations concerning the vital principle." In 1787 he was elected as one of the secretaries of the society,

and held this office until 1791. He was then, from 1792 to 1797, appointed Vice-president. During this time Ferriar was engaged in his practice as physician, visiting a great deal amongst the poor people.

In 1789 he was appointed physician to visit the home patients of the Infirmary, and next year when the Whites, Halls, and Doctors Cowling and Eason (q.v.),—the honorary staff of the Infirmary—resigned, Ferriar was appointed Honorary Physician. This wholesale resignation of the staff took place as a protest against the proposal of the Trustees to double the number of the honorary medical officers because they thought the needs of the institution required such a step. The acting staff, however, looked upon the increase not only as unnecessary, but also as an unjust reflection on the way they had done their work, and resigned in consequence.

As one of the Infirmary physicians Ferriar came into close contact with the poor in their homes and he had a large experience of the ravages which the infectious fevers of the day—chiefly typhus fever—made in the ranks of the working classes. He took the subject much to heart and endeavoured, eventually with success, to ameliorate the conditions

which led to and fostered so much sickness in the town. He wrote several papers on the fever epidemics, the first dealing with the outbreak of 1789 and 1790.

In these years a severe epidemic of typhus fever occurred in Manchester, and was especially virulent in certain quarters of the town, namely, Jackson's Row; Bootle Street, between Jackson's Row and Peter Street; Blakely Street, off Miller Street; Brooks's Entry, Long Millgate; Newton Street; Milk Street, behind the present "District" Bank in Spring Gardens; Portland Street; Silver Street, off Minshull Street, and Paradise Court, a court in the centre of a block of dwelling-houses on the land now occupied by Messrs. S. and J. Watts and Co.'s warehouse. In these districts, which were thickly populated by the very poorest class, many people lived in cellar dwellings, consisting of two rooms below the street level, the front apartment being used as a kitchen and living room, and the back as a bedroom. The latter had only a small window for the purposes of light and ventilation, and this, though on the level of the outer ground, was near the roof of the cellar and generally so patched, or covered up with boards or paper, to keep the cold

from coming in through the broken panes as to be quite useless for the admission of light and air into the apartment. Most of the houses took lodgers in as well. The bed-room was common to all, and sometimes as many as seven or eight occupied it, three or more sleeping in one "bed." The beds were placed on the ground, which was often unpaved, and always damp; and such was the poverty of these people that they could seldom afford straw for bedding, but were obliged to lie on heaps of rags or on the tattered remnants of tarpaulings and cotton bags. So dark were most of these hovels that the light of a candle was necessary, even at noon, to see the patients, and moreover the atmosphere was so bad that the physicians could only with personal discomfort stay long enough in the bedroom to make a rapid examination of the sick. With such social conditions it is not surprising that typhus fever was not only epidemic in Manchester towards the end of the eighteenth century, but also that odd cases were constantly occurring, especially in lodging houses in Brooks's Entry, Newton Street, Paradise Court, and Bootle Street.

The most unhealthy quarters of the town were in the districts in which the Manchester Infirmary

undertook the treatment of home patients, and amongst the physicians who visited these patients at this period was Dr. Ferriar. He took a great interest in his work, and gave much thought to the problems which the social condition of the patients excited in his mind. As the results of his observations he wrote and printed appeals which were circulated amongst the townspeople, drawing public attention to the danger which such conditions of life amongst the poor were to the community, not only as affecting the poor themselves, but as threatening the wealthier classes.

In 1791 he wrote "An address to the Committee of Police in Manchester," urging that they should take steps to protect the townspeople from the epidemics of fever. He pointed out that the lodging houses were the centres in which infection was fostered, and from which it was spread. He even knew of cases in which a lodger "fresh from the country" had been given a bed which was filled with infection from its last tenant, and from which the corpse of a victim to fever had only been removed a few hours previously. All these lodging houses should be licensed by the civil magistrates, and not be allowed to take in more

than their licensed number of dwellers. Inspectors should be appointed to visit them regularly, with power to remove all the uninfected inhabitants from a house with fever to a clean one, and to use all the necessary methods of cleansing and sweetening the house and contaminated clothes and bedding when the fever abated. A nurse should also be appointed to visit the sick and attend to their requirements, for very frequently those ill in bed, especially when in a lodging house, were absolutely uncared for. In this address Ferriar made no suggestion of the establishment of fever wards, probably because he feared that he had already gone far enough in his proposals, and was afraid of intruding on the patience of the Committee. He therefore contented himself with suggesting that the uninfected people should be moved to a clean house, the stricken ones remaining isolated where they were taken ill.

In 1792 he published in the first volume of his "Medical Histories and Reflections" his most interesting account of the epidemic fever of 1789 and 1790, and he developed his subject in other papers published in the three succeeding volumes of the same work. These papers show Dr. Ferriar to have been an

acute observer, as well as an original thinker, and well in advance of his contemporaries, locally if not generally speaking. The clinical course of the fever is not described, but merely an account of the preliminary stage of two weeks is given and concluded by the remark that about the end of this time the fever "became a formed typhus." The mortality in this epidemic was unusually low, only two dying out of the first ninety cases seen by Ferriar. The suggestion is made for the first time in this paper that as a means of controlling the ravages of the disease, fever wards should be opened in various parts of the town, to which infectious cases could be moved from the lodging houses and other dwellings.

In these and subsequent papers Ferriar attacked the system of management of the cotton mills which had sprung up rapidly all over this district, and the conditions of life of the operatives, which undoubtedly did much to spread infection. An immense impetus was given to the cotton industry by the invention of Crompton's spinning mule, in 1779. Crompton was too poor to find the necessary fees for protecting his new machine, and he made no arrangements for being helped financially in the matter. His life was made miserable by the

incessant attempts on the part of his neighbours and rival spinners to spy out the secret by which he produced yarn finer than any previously spun and fine enough to weave into muslins, which were at that time imported from India. He dare not leave his house night or day for months, for fear least his workroom should be broken into and the secret of his machine, which had taken years to perfect, be stolen. Eventually he was persuaded by some spinning firms, who agreed to contribute sums amounting in all to under £70, to make public his invention without any patent restriction. Consequently anyone who could raise the money was able to build one of the new machines; and large numbers were erected, not only in mills owned by the wealthier classes, but also in the homes of the people where they were worked by the manual labour of all the able-bodied, children as well as adults. The labour resources of the district were soon exhausted and it had to be imported from other parts; cart and boat loads of people of both sexes and all ages coming to Manchester, often from the workhouses of London and other large towns.

In many mills the operatives, especially the young children apprentices, slept on the premises, and with

the machines running night and day, when one set of operatives was changed, those in bed were poked out to take their places in the mill, whilst the off shift often turned in to the warm beds just vacated. The atmosphere of the workrooms was terribly vitiated and foul, ventilation being quite a small consideration, and, even when provided for, any place through which air could pass was blocked up by the operatives to keep out the cold in winter and also to develop the heat which was then thought necessary for proper spinning. The floors of the mill and the machinery itself were "filthy beyond belief." No wonder that germs of infectious disease throve in such excellent incubating chambers. Moreover, no control was exercised over the coming and going of the sick, all that was asked for was that the work should be done. Operatives just convalescent from infectious fevers were permitted to resume their work as soon as they possibly could, and no attempt was made to disinfect their clothes or persons, and the clothes of those who had died were sold to and worn by others without any compunction. So unhealthy were the mills, and so many of the operatives fever stricken, that it was supposed that typhus could, and did actually arise *de novo* in a

mill, but against this was the fact, that when one was conducted in a sensible way with reasonable sanitary precautions, proper ventilation, suitable care of the work-people and attention to likely sources of infection, the life of the operatives was a perfectly healthy one.

Such was the condition of affairs about the time of the epidemic of fever in 1789 and 1790 which moved Ferriar to action; but although the value of a warning from a man who later gained a reputation as one of the leading English writers and thinkers of his day was appreciated by the townspeople, private interests prevented anything effectual being done for the public good.

Ferriar also, at this time, suggested that the low class lodging houses should be done away with, and that large ones on the plan of barracks or caravanserais should be erected. Such dwellings would, he believed, keep the labourers who were flocking into the town in a healthy condition. But he also advocated such a plan from the mental and moral point of view. He wished that opportunities should be arranged in connection with these large lodging houses for affording the tenants some agreeable exercise, such as cricket, on their return from work,

and for inducing them to spend their leisure time to better advantage than that which resulted from always frequenting the ale-houses or loafing about with nothing to do.

In 1794 typhus broke out again in an epidemic in the districts affected by the earlier visitation and in a more severe form. The poverty of the masses was greater than ever, and was occasioned by the decay of trade, and the great numbers of workmen who enlisted in the army and left their children to the slender support which could be earned by the labour of the mother. Ferriar found in many instances that for three or four days before the appearance of typhus in a house, the family, often consisting of several children, had "subsisted on little more than cold water," the amount which such a family could get from the parish being only two shillings a week. Fever attacked such households with horrible results; sometimes five or six miserable creatures lay ill together in one cellar in the hottest summer weather. If there were not sufficient bed space, patients would lie on chairs placed together, and in some instances they were found under a loom in the work-room which was attached to many of the houses. The dead often remained for whole days by the side of the survivors, and

at such times "delirium and insensibility were states to be envied."

Public alarm, excited by this new evidence of danger in Manchester, was further increased by the appearance of typhus at Ashton-under-Lyne, whither it had been carried by an infected girl—a cotton picker—from Manchester, and several gentlemen, including Dr. Percival and Mr. Bayley, of Hope, considered that the time had come when some attempt must be made to form a Board of Health. Ferriar was requested by them to draw up a plan for such a body, and this he did, reading a paper on the subject at a public meeting held on January 7th, 1796. After restating the ideas which he had previously published, he proposed, as the best means of coping with the difficulty, that fever wards should be established in each of the districts into which the Infirmary home-patients were divided, to which the infectious cases should be taken. The meeting appointed a large and influential committee composed of the Magistrates, Physicians, Surgeons, Apothecaries Boroughreves, Constables, Churchwardens, Overseers of the Poor of Manchester and Salford, the Committee of the Strangers' Friend Society and many of the local gentry, "to superintend the health of the poor

in the towns of Manchester and Salford and the adjacent country." Further meetings were held by an executive committee, and as a result of inquiries and deliberations, it was resolved to prepare apartments at once in one of the Infirmary districts for the reception of persons sick of infectious disorders, and that these be provided with beds and other furniture, with nurses, and with everything necessary for the accommodation and comfort of the sick. After a careful consideration of possible sites, the committee fixed upon four small houses on land belonging to the Infirmary trustees, but outside the walls of the institution, and detached from other buildings, as most suitable for their purposes. These houses were at the corner of Parker Street and Portland Street, about opposite to Aytoun Street, a plot of land which was described as being "remote from the centre, and only at a small distance from the extremity of the town, in a situation peculiarly open and airy and unconnected with other inhabited buildings." The houses were altered so that they would accommodate twenty-five patients, and part of a vacant adjoining piece of land was enclosed by a wall and used for washing and airing the clothes of the patients. The institu-

tion thus opened on May 27th, 1796, was called the "House of Recovery,' a name adopted as being much less likely to alarm the feelings of the poor than would that of "Fever Wards." The House of Recovery was supported by voluntary subscriptions, and was quite a separate institution from the Infirmary, though it was "appropriated for the reception of such home patients of the Infirmary as the physicians may think proper to remove from their own homes," and though its inmates were under the care of the Infirmary physicians.

To encourage people to notify the occurrence of infectious diseases, a fee of "one or two shillings" was paid by the Infirmary physicians for the Board of Health to anyone who furnished the first information of the appearance of fever in any poor family within the limits of the Infirmary home patient districts, and rewards were offered to heads of families if they disinfected the house and clothes properly after the cessation of the fever, a sufficient sum of money being provided for them to defray the necessary cost of these measures.

The foundation of the House of Recovery in the situation chosen for it was not carried through without great opposition from several prominent townsmen,

some of whom owned property in the neighbourhood, and half a dozen medical men, including Charles White, one of the founders of the Infirmary. Dire misfortune was prophesied as likely to be the result of collecting many fever cases together under one roof, and of carrying infected people along the streets in a sedan chair, through the crevices of which the poison of the fever would escape and infect passers by. But the Board of Health went on with their plans and proved the correctness of their contentions in the course of a few months. It was soon seen after the opening of the fever wards that the number of fever patients on the books of the Infirmary was greatly diminished, and the fear that fever would be spread in the neighbourhood of the House of Recovery was shown to be groundless. Thus in the buildings close to, in Portland Street, Silver Street, and Paradise Court, the numbers of fever cases on the home patient books of the Infirmary during the months from September to May—the period of the year when the fever was most virulent as a rule—for the three years immediately preceding the opening of the House of Recovery were 400, 389, and 267. For the eight months following the opening of the fever

wards the same cases in this district amounted to 25 only. As further evidence of the decrease of fever it was pointed out that the bills of mortality for the city generally for 1796 showed that there had been a decrease in the burials amounting to nearly 400. The improvement was shown in the third annual report of the Board of Health in another way. It was there stated that the expense the overseers were put to in burying paupers was reduced from £302. 16s. 6d. for 1,078 coffins in the two years preceding the opening of the House of Recovery, to £211. 19s. for 751 coffins in the two following years. These figures may be misleading, inasmuch as the virulence of the epidemic was probably abating about the time of the opening of the House of Recovery, but there was no doubt as to the good effect which isolation had in controlling fever outbreaks, and in 1798 it was decided to add a ward which was to be devoted entirely to the nursing of scarlet fever cases, though whether this ward was actually opened at this time is not stated in the proceedings of the Board of Health.

The beneficial influence which the work of the Board of Health had on the health of Manchester

became more and more marked as time went on, and the opponents of the fever wards saw that the disease was not spread by collecting infectious cases under one roof, even when a house in a row was used, as happened on more than one occasion, as a temporary hospital in times of pressure. So pleased were the townspeople with the results of the efforts of the Board of Health, that in 1804 it was decided to build a new and large hospital to contain 100 patients, so that there should be plenty of accommodation for all the fever cases of the neighbourhood, and a sum of money amounting to close on £5,000 was raised, and with this was purchased the plot of land now occupied by the Grand Hotel in Aytoun Street, and a substantial brick hospital built thereon. This new House of Recovery was opened in 1804.

Ferriar, writing in 1810, said "that since it has been in the power of the physicians to admit every case of infectious fever, as it occurs, we have felt ourselves completely masters of the disease. Epidemic typhus is now unknown to us, while it has been raging in some of the neighbouring towns."

In continuation of his public health work, Ferriar was asked to plan a fever ward for Stockport, and this he did, the scheme being carried to a successful conclusion.

Another suggestion of Ferriar's for the public good was the provision of baths for the poor, not only for cleanly reasons but also because he thought that a cold douche twice a week would harden their constitutions and brace them up against illness.

Ferriar's medical work was published in four volumes with the title "Medical Histories and Reflections," the first volume appearing in 1792, and the others at later dates. In 1810 a second edition was published. In the preface of this edition Ferriar wrote, "In some of the discussions which will be found augmented (in this edition) I had some temptations to controversy, but I have preferred a convincing display of facts, from regard to the solemn and sacred nature of professional duty. A medical writer who suffers personal considerations to warp his record of facts is the worst of criminals."

He objected to "the method so fashionable at present of publishing single cases," which appeared to him to be not well calculated to enlarge our knowledge, either of the nature or cure of diseases. "On a single instance, however faithfully delivered, no point of practice can rest." He kept a regular account of his success in the treatment of difficult diseases, and based his essays on these notes.

Apart from the articles on the fever epidemics the most interesting essays are those on pneumatic medicine, and the medical properties of digitalis. The latter was first published in 1790, in pamphlet form, and reprinted in the second edition of the essays.

In the article on the effect of pneumatic medicine an account is given of the administration of "hydrogene," "oxygene," and the "hydro-carbonate gas," in various chest complaints, and much disappointment is expressed at the very unfavourable effects on the patients. One rather shudders to think of the effects of administering coal-gas and hydrogen, and no surprise is felt on reading that Ferriar only tried them in one or two cases. The use of digitalis as a drug was much more satisfactory, and after clinical observations with it on a large number of cases Ferriar recommended it as a direct remedy in active hæmorrhage, on account of its retarding the velocity of the circulation; as a diuretic; in pulmonary consumption arising from hæmoptysis or tubercles; in anasarcous affections of the cellular membrane of the lungs; in chronic coughs, asthma and palpitations of the heart, not depending on simple debility, and in general dropsy. It was to be administered very cautiously on account of its poisonous qualities.

There was, of course, no knowledge of the pharmacological action of digitalis, and although the observations with it were carried out in a systematic way for the period, they were not scientific or conclusive.

The essay on the establishment of fever-wards in Manchester has an interesting passage describing Ferriar's experience of the treatment of fever by immersion in a cold bath, which had been tried before by other physicians.

"When the fever runs on to a great length, without any particular affection of the head or lungs, when common stimulants lose their effect, and when the extreme debility of the patient takes away all hope of restoring him by ordinary means, I find the cold bath conveniently serviceable—among the home patients I was frequently under the necessity of employing simple ablution with cold water, from the want of conveniences; in the House of Recovery we use the slipper bath, and immerse the patient. I have never known any injurious effect produced, on the contrary, patients have often declared that they felt themselves agreeably refreshed by it. In some cases where great stupor accompanied the other bad symptons, and where I was not without

suspicions respecting the brain, I have yet ventured on the use of the cold bath, after applying leeches, or cupping-glasses to the temples, and have had the satisfaction of seeing the patient recover from a state little short of death. Immersion generally brings on very quiet and salutary sleep, in the course of an hour or two. One of my patients, in whom the effects of the bath appeared to go off towards evening, was bathed twice a day."

There is no direct mention of the temperature of the patients, clinical thermometry not being known then.

Ferriar's literary powers, especially those of versification, drew him into the inglorious controversy between Mr. Simmons (q.v.) and Dr. Hull, of the Lying-in Hospital, on the Cæsarian operation, which was an important episode in the medical life of Manchester in the years 1799-1800. Ferriar was accused by Dr. Hull of being the real author of a clever translation and modification of an epigram which was used by Mr. Simmons in an attempt to disparage Dr. Hull. Whether he inspired the attack on Dr. Hull or not cannot be definitely stated, but medical tradition held such to be the case. Hull pointed out that Ferriar was the only member of the

Infirmary staff on speaking terms with Mr. Simmons at the time of the controversy. However, he evidently quarrelled with Simmons in 1812, declining in consequence of prior disagreements to have any further professional intercourse with him and expressing the intention of not consulting with him as to the treatment of any patients.

Ferriar's share in the controversy with Hull was not to his credit. He had written a paper on "An affection of the lymphatic vessels hitherto misunderstood," in which he criticised Charles White's theory of phlegmasia dolens, although he had not seen a case of this disease himself, but had based his criticism on the experience of one patient, namely, a man whose left leg was swollen and œdematous in consequence of "a general inflammatory state of the lymphatic absorbents of the limb."

Hull expressed surprise that a man who had written in the preface to one of his works, "On a single instance of success, however faithfully delivered no point of practice can rest," should have written as Ferriar did concerning White's work. Hull also accused Ferriar of plagiarism, and of using the ideas of another man—Mr. Trye—in his work, without any acknowledgement, and shewed that although Ferriar

denied having read Trye's work, he knew all the time of what the latter had written—in fact, that he did in medicine what he accused Sterne of doing in general literature.

Ferriar is most widely known by his able work in general literature, especially by his essay on "The dramatic writings of Massinger," and by his "Comments on Sterne" and his "Illustrations of Sterne." In the latter essay much trouble was taken to shew that Sterne had borrowed many of his ideas from previous writers, and that Tristram Shandy was by no means his own original work. The original essay on Sterne's plagiarisms was read before the Literary and Philosophical Society in 1791, and published in Vol. 4, page 45, of the memoirs. This was afterwards elaborated, more specimens of copied work being found, and was published with other essays in 1798 and 1812.

We have rather an interesting glimpse of Ferriar in the following account by Robert Owen, of a visit to the Literary and Philosophical Society to hear him read a paper. Ferriar maintained that anyone by his own will might become a genius, and that it only required determination and industry for anyone to attain this quality in any pursuit.

The paper was a learned one, and no one rose to discuss it. As Owen wanted his friend John Dalton, who was with him as a guest, to hear a discussion he rose and said that he himself had always had a great desire to be a genius, and had always been very industrious in his application for the purpose, but could never succeed. He thought, therefore, that there must be some error in the learned author's theory. Dr. Ferriar rose to reply. "He blustered or became so red with suppressed feeling as to attract the attention of the members, and merely stammered out some confused reply, when to relieve his embarrassment some members began to speak and a discussion followed." But from that night Ferriar never was so friendly to Owen as he used to be previously.

Some ideas of Ferriar's literary tastes may be gleaned from his "Bibliomania," a poem recounting the various joys and treasures of lovers and collectors of books. He confesses that he himself is under the influence of bibliomania.

> Ev'n I, debarred of ease, and studious hours,
> Confess, 'mid anxious toil, its lurking pow'rs.
> Tho' pure the joy, when first my hands unfold
> The small, rare volume, black with tarnish'd gold.

He longs

. . . . for that power for which magicians vye,
To look through earth and secret hoards descry.
I'd spurn such gems as Marinel* beheld,
And all the wealth Aladdin's cavern held,
Might I divine in what mysterious gloom
The rolls of sacred bards have found their tomb.

The poets whose lost works he would like to find are Menander, Antimachus, Sappho, and Aristophanes.

A rich manuscript he infinitely prefers to a Caxton or Pynson—

But sweeter far to me these bright designs,
Ere Caxton's blocks imprest their clumsy lines.

He only buys to read, not to collect specimens—

The cheapest page of wit, or genuine sense
Outweighs the uncut copy's wild expence.

And the poets for choice—

For stupid prose my fancy never throbs,
In spite of vellum leaves, or silver knobs.

He has some rare books as it is,

But scarcer books had kept their station here,
Had warning Cynthius touch'd my infant ear,
And shew'd the grave collector's toil employ'd,
To gain the works my childish sport destroy'd.

* Færie Queene.

The books Ferriar thus regrets are the Histories of Parismus and Parismenos—a child's book—of the Seven Champions, and Reynard the Fox, and the Academy of Compliments—all very scarce and rare when the Bibliomania was written.

The essay on the "Varieties of men," which was published with his "Illustrations of Sterne," is a humorous criticism of the various accounts extant in literature, of peculiarly formed races of men. He characterises as "profound and solid lying," the descriptions in Pliny and other writers, of people with feet turned the wrong way; or with feet so big that they served as umbrellas or parasols when the men were lying down; of people with no heads, their eyes being in their shoulders; of others with no mouths, who were nourished by the smell of fruits and flowers, etc. The various stories of human beings with tails also come in for jocular notice, but Ferriar's similar criticisms of the pygmies and tailed "genus of hominum caudatum" that lived in the mountains and forests of Borneo, "according to the celebrated Dr. Harvey," raise a smile to-day against Ferriar. The tailed man thus scoffed at is, undoubtedly, the orang-utang. But Ferriar was justified in his general criticisms, and had real grounds

for lamenting in his time that "so few books are written with a design to instruct, and so very many only to surprise or amuse."

In 1813 Ferriar published "An essay towards a theory of apparitions." In this he argues that whilst it is recognised that in certain diseases of the brain such as delirium and insanity, spectral delusions take place, even during the space of many days, it has not generally been observed that a partial affection of the brain may exist, which renders the patient liable to such imaginary impressions, either of sight or sound, without disordering his judgment or memory. He accounts for the best supported stories of apparitions, of which he relates several, by such a peculiar condition of the sensorium. The arguments are not very conclusive, but the paper is interesting.

Ferriar died suddenly on February 4th, 1815, and was buried in St. Mary's Churchyard. There is a memorial tablet to him in St. Ann's Church, under the tower, removed there from St. Mary's, when the latter was pulled down and the parish amalgamated with that of St. Ann's:—

Sacred to the memory of
John Ferriar, who died on the 4th of February, 1815,
in the 53rd year of his life, and of
Barbara his wife, who died on the 1st March, 1800.
Also his son, Colonel Thomas Ilderton Ferriar, Colonel
in the Colombian Army, mortally wounded at the
Battle of Carabobo, June 24th, 1821, and
died on July 17th, 1821.
Also to John Ferriar, Lieut.-Colonel in the Columbian
Army, died May 18th, 1829, in Columbia.
Also Arthur Edward William, third son, died February
20th, 1835.
Also Alexander, second son, Prothonotary and Registrar
on the Equity and Admiralty side of the Supreme
Court of Judicature, Bombay, died December
27th, 1836.

Dr. Charles Henry in his memoir of his father, Dr. William Henry, refers to Ferriar in the following passages :—

"In his invaluable 'Medical Histories'—the systematised records of his experience in our great public charities—Dr. Ferriar has left to the profession the finest existing models of what such narratives of disease should be—in style simple, concise, and energetic, though not neglecting on suitable occasions (as in his moving essay on the "Treatment of the

dying") the warmer colouring suggested by deep feeling—in substance, deriving general pathological conclusions from the accumulated and methodical results of an experience not less ample than sagaciously directed and interpreted. As a hospital physician, Ferriar seems to have possessed, in an eminent degree, the faculty of at once eliciting truth from the obtuseness or reluctance of the suffering poor, by his abrupt and pointed interrogatories, and by his impatience of all irrelevant matter. He was especially distinguished by strength and rectitude of understanding, by manners somewhat unbending and severe, by a high sense of honour, and by a fearless and dignified moral bearing."

Another account of Ferriar occurs in the Gentleman's Magazine for 1815 (Vol. I., p. 377).

"The high rank which Dr. Ferriar held in his profession, not only in Manchester and its immediate neighbourhood, but through a wide circle of the surrounding country, was founded on long and general experience of the efficacy of his counsels. He was endowed by nature with an acute and vigorous understanding, which he had matured by a life of diligent study and of careful and well digested observation, into a judgment unusually prompt and correct in its decisions. The purposes of his sagacious mind were pursued also with a steadiness of determination which

generally secured their accomplishment, and unexpected difficulties in the treatment of disease he encountered with firmness, and with great fertility of invention. As a professional author, he had obtained a high rank, and the world is indebted to him for a large fund of valuable knowledge conveyed in a style which for perspicuity, strength, and simplicity is a model to medical writers. These works will be his durable monument as an improver in the art of medicine. His attainments as a polite scholar will be preserved by writings in which he displayed correct taste, extensive reading, and original views of his subjects. In the common relations of life he was a man of inflexible honour and integrity, a warm and steady friend, and a tender and indulgent parent."

In 1788 Ferriar lived in St. James's Square, moving afterwards to 4, Dawson Street, that portion of the present Mosley Street between Booth Street and St. Peter's Square.

A small ward in the Infirmary is called after Ferriar.

REFERENCES.

Ferriar's own writings; Proc. Board of Health of Manch., 1806; Mem. of Dr. Henry by W. C. Henry; Life of Robt. Owen by himself, Vol. I., p. 37; Palatine Note Book, Bailey, Vol. II.; Dr. John Hull's works; Renaud's Short History; Gent.'s Mag., 1815, Vol. I., p. 377; Dict. Nat. Biog.; Edinb. Med. and Surg. Journ., 1815, p. 268.

THE INFIRMARY AND LUNATIC HOSPITAL, 1780

DR. GEORGE BEW.

Honorary Physician to the Infirmary, 1790 to 1794.

In 1789 Dr. Bew was appointed, along with Dr. Ferriar, to visit the home patients of the Infirmary, and in 1790 he became full physician, resigning, however, in 1794 to remove to Kendal.

Bew was one of the founders of the Literary and Philosophical Society, one of its original secretaries from 1781 to 1784, and a vice-president in 1785. He read a paper before the society on "Observations on blindness and on the employment of the other senses to supply the loss of sight" (Vol. I., p. 168, Memoirs). In his paper he gave an interesting account of Henry Moyes, the blind philosopher, and John Metcalf, the celebrated blind road maker.

He died somewhere about 1813, as the following extract from a Kendal paper, of November 8th, 1817, shews: "On Monday night the body of George Bew, M.D., formerly of this town, was disinterred, by request of his sister, after being buried more

than four years. The only reason for this seems to have been to re-bury the remains in Cheshire" —probably at Northwich, for in the Manchester Gazette, for January 24th, 1825, is an obituary notice of the death at Northwich of "Mrs. Colville, sister of the late George Bew, M.D., formerly of this town."

Bew wrote a few medical papers, but none of any importance.

REFERENCES.

List of Members and Officers of Lit. and Phil. Soc.; Renaud's Short History.

ROBERT DARBEY, M.D.

Honorary Physician to the Infirmary, 1790 to 1795.

ROBERT DARBEY was appointed resident Apothecary to the Infirmary in 1765. He performed the duties of a House Surgeon as well as apothecary, and this additional title was given to the post after he had held it for twelve years. He acted as apothecary and secretary for ten years, and then as apothecary and house surgeon for eleven more —in all he was in residence for the long period of 22 years. He must have been about 42 years old when he resigned in 1787.

In 1782 a charge was made by Dr. Wright (q.v.), one of the physicians, against Darbey for modifying his prescriptions and for exceeding the duties of the post of Resident Apothecary and House Surgeon. This charge was printed in pamphlet form and circulated amongst the Trustees, but Dr. Percival, the honorary medical staff, and the visiting apothecaries, when appealed to, supported Darbey.

In 1788 Darbey obtained leave to absent himself

from his resident post so as to be enabled to attend lectures in London, and he spent a winter session thus, returning to the Infirmary where he remained until the autumn of 1780, when he resigned.

His services to the Infirmary were rewarded by a gold medal, which was presented to him by the Trustees in 1788, with a very complimentary letter.

In April, 1790, Darbey obtained his degree of doctor of medicine at Glasgow University, with a thesis, the title of which is "Dissertatio medica de moschi."

In 1790 he was appointed Physician to the home patients of the Infirmary, and later in the year full Physician when the Whites, Halls, Cowling and Eason resigned.

In 1795 he resigned his position on account of declining health, and next year presented his anatomical preparations to the Infirmary.

In August, 1796, Darbey died, aged 51, after a long and painful illness. He was buried in the Collegiate Church.

In the essay on "The use of cod-liver oil," which Percival published in 1789, is an interesting letter from Darbey, written in 1782, when he was then resident apothecary and house surgeon at the Infirmary,

stating the result of his experience of over ten years of the use of the oil in chronic rheumatic cases. Under Dr. Kay (q.v.) is given a short account from Darbey's letter of how they came to use the oil internally at the Infirmary. Darbey was much struck with the good results they obtained, as previously to its use he had seen so many cases of chronic rheumatism sent away unrelieved. So general was the use of the oil at the Infirmary that fifty to sixty gallons were dispensed annually, and patients of the poorest class thought so well of it that they used to request its use for almost every lameness.

Percival refers to Darbey as a man of judgment, observation and integrity.

REFERENCES.

Hibbert Ware's Foundations; Glasgow Univ. Graduates; Percival's Essay on Ol. jecoris aselli; Renaud's Short History.

PETER LE SASSIER, M.D.

Honorary Physician to the Infirmary, 1790 to 1795.

PETER LE SASSIER was appointed Honorary Physician to the Infirmary on the increase of the staff in 1790. He resigned in January, 1795, as he had been in ill-health for some time, having caught a fever from visiting the home-patients of the hospital, and because he objected to run any further risks from such practice, the poor houses in many parts of the town being then full of typhus infection.

According to the Directory, Le Sassier was living in Lever's Row in 1797, and he was alive in 1815, but his name is not in the Directory for 1821.

REFERENCES.

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JOSHUA PARR, M.D.

Honorary Physician to the Infirmary, 1790 to 1792.

JOSHUA PARR graduated at Leyden, in 1788, his thesis being entitled "de Crystallis formandis."

He came to Manchester from Liverpool on his election as Honorary Physician, November 4th, 1790. He evidently was not of a strong constitution, having been obliged to winter abroad at Nice in 1785 and 1786. He only remained on the staff until June, 1792, when he resigned, owing to ill-health, and from the necessity of going to live in the South of England.

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Min. Inf. Committee; List of Leyden Graduates.

SAMUEL ARGENT BARDSLEY, M.D.

Honorary Physician to the Infirmary, 1790 to 1823.

Physician Extraordinary, 1829 to 1850.

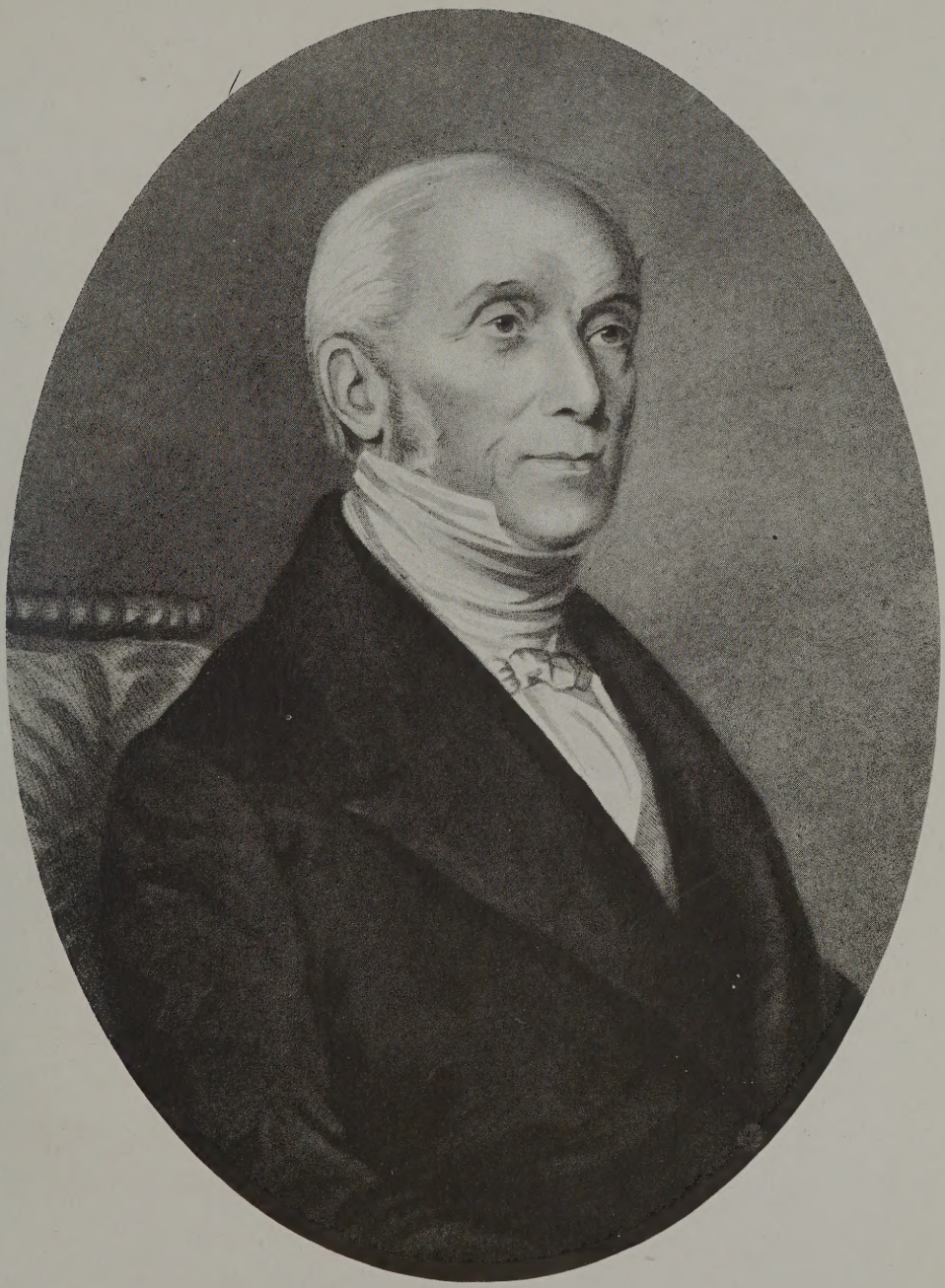
SAMUEL ARGENT BARDSLEY was born at Kelvedon, Essex, on April 27th, 1764. He studied for his profession at Nottingham, London, Edinburgh and Leyden. He was at the last university from 1786 to 1789, and took his degree of Doctor there, with a dissertation "de Somno," in 1786.

He commenced practice in Doncaster, but stayed there only for a short time, coming to Manchester in 1790, when he was appointed Honorary Physician to the Infirmary.

From 1793 to 1796 Bardsley was one of the secretaries of the Literary and Philosophical Society. In 1794 he read a paper, "On canine and spontaneous hydrophobia," before it.

From 1797 to 1808 he was a vice-president of the society, and read two other papers of general interest.

In 1796 he joined, with his colleagues on the



SAMUEL ARGENT BARDSLEY.

Infirmary staff, in the agitation for the formation of the Board of Health for Manchester, the establishment of fever hospitals, and the passing of proper factory laws, and in 1801 wrote an address on "Advice to the poor," which was printed and circulated at the expense of the Board of Health, amongst those for whom it was designed.

Amongst other good advice, he urged them to spend their money on necessary, rather than ornamental and useless things. Especially should they provide a proper number of clean beds. "How often have your benefactors been hurt by seeing, in some habitation, an useless and expensive piece of furniture, such as a fancy clock or ornamental chest of drawers, when the miserable husband, his wife and numerous family of both sexes, have been compelled to lie crowded together in one bed, for want of any other accommodation."

About 1804 he took part in an attack made by Mr. Killer and Mr. Ward, surgeons of the Infirmary, on the resident house surgeon and apothecary, Mr. Hutchinson. The charges were of neglecting to carry out orders as to prescriptions which were not at all to the credit of the surgeon who wrote them. Although Bardsley said that he himself had no

complaint to make, he supported his colleagues and addressed the Trustees in a speech which included the following lines, "Observe gentlemen, in two little months only, a patient has wanted his medicine for four long days; four long days, gentlemen, in two little months." This charge was, as a matter of fact, destitute of truth, and the Trustees not being moved by such eloquent appeals refused to dismiss Mr. Hutchinson.

In 1800 he published some "Critical remarks on the tragedy of Pizarro, with observations on the subject of the drama."

In 1807 he published his only medical work, with the title, "Medical reports of cases and experiments, with observations chiefly derived from hospital practice; to which are added an enquiry into the origin of canine madness, and thoughts on a plan for its extirpation from the British Isles."

This is a small volume, with essays on "Chronic rheumatism," "Diabetes mellitus," "The effects of galvanism in paralysis," etc. The essay on canine madness is the most interesting; it is the paper read before the Literary and Philosophical Society in 1794, revised and added to. The questions with which Bardsley sums up his ideas are very pertinent,

and could not be put much better at the present time.

"1. Is it not highly probable that canine madness in dogs arises solely from the actual communication of the virus?

2. Is not a few months the longest period during which the poison lurks dormant in the animals?

3. Does it not appear sufficiently probable that a proper system of quarantine, extending to dogs within the Kingdom, and to such as may be imported, would be the most effective means of extirpating canine madness from the British Isles?"

In a letter to the Trustees, published in Aston's Exchange Herald, August 4th, 1823, Bardsley expressed his wish to resign his office at the Infirmary, after holding it for 33 years. He recommended to their notice as his successor, his nephew, Dr. James L. Bardsley, and added that their vote and interest on behalf of his nephew would be deemed a personal favour conferred upon himself. The resignation was accepted, and a few years later, in 1829, he was elected Physician Extraordinary.

From 1794 to 1827 he lived in Chatham Street, in rooms afterwards occupied by his nephew,

Sir J. L. Bardsley. From 1827 onwards he lived at Ardwick Green.

After retiring from the Infirmary, he continued to take an interest in his profession and in scientific work, and we have an interesting picture of him in these days in Angus Smith's Centenary of Science, p. 70.

Dr. Bardsley used to attend the scientific meetings at the Royal Institution (circa 1843). "He shewed his connection with the past in his appearance; he was, so far as the writer knows, the last of those here who powdered their hair. He had but little to powder, and the white dust flowed over his shoulders and his dress; but it improved the appearance of a man of his years, as it gave a completeness to the whiteness, and covered what imperfections might exist in the complexion of the head. His manners were exceedingly pleasing—easy, but formal, recalling the past, and contrasting with the present hurry of business. He took us to the time of Percival, who again took us to the times of the old régime of France, a time when appearances were beautiful, however deceitful. Dr. Bardsley lived in later life in a house on Ardwick Green, at the north corner of Brunswick Street. He liked to recall old days,

and to look also at new science, but especially to speak of all he remembered."

Bardsley died on May 29th, 1850, at Fairlight, near Hastings, whilst on a visit. He is buried at St. Saviour's Church, Upper Brook Street, Manchester.

There is a portrait in oils of him by du Val at the Royal Infirmary. An engraving of this was published.

REFERENCES.

Bardsley's own writings; Dict. Nat. Biog.; Proc. Board of Health of Manch.; Centen. of Science, Angus Smith; Renaud's Short History; Pamphlet by Hutchinson on the differences with the surgeons.

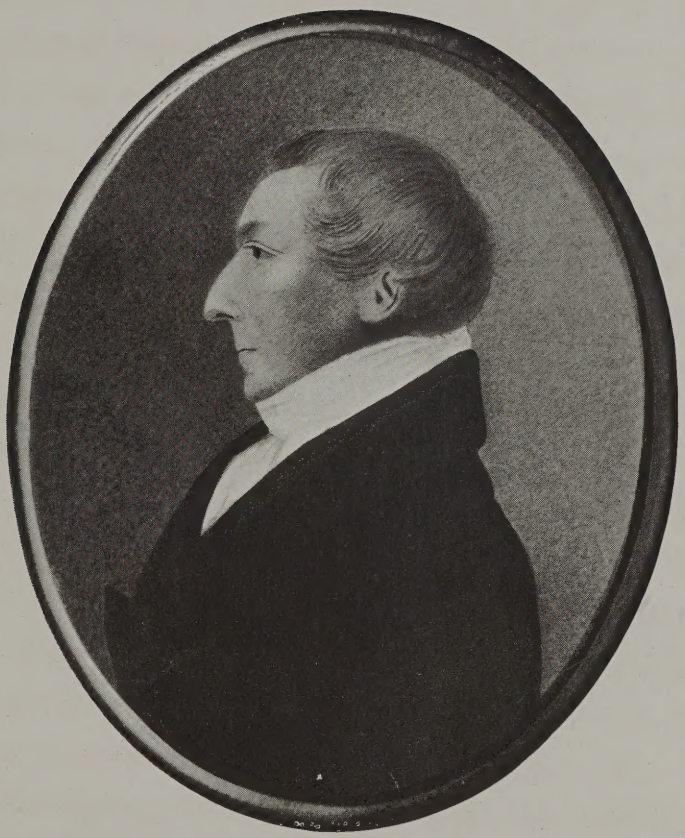
WILLIAM SIMMONS, M.R.C.S.

Honorary Surgeon to the Infirmary, 1790—1830.

WILLIAM SIMMONS was born about 1762. He was apprenticed to Mr. Hinckley, a surgeon, at Stone, and proved to be much interested in his work, taking notes of many of his cases. After the expiration of his apprenticeship he entered St. George's Hospital, London, and spent two winters there, studying under John Hunter.

Simmons was admitted as a Member of the Corporation of Surgeons, on April 7th, 1785. When qualified he commenced to practise in Stone, but, in 1789, went to Manchester, where he settled permanently. In 1790, when the Infirmary staff, owing to the differences with the Trustees, resigned, Simmons was elected as Honorary Surgeon, and, having received the most votes of the six surgeons then elected, was made senior surgeon, and remained so for 40 years.

Simmons played a prominent part in the medical life of the town, but apparently he was a man for



WILLIAM SIMMONS.

whom the paths of peace had not much attraction, some few years of his life being spent in controversies with members of the profession, carried on in the public ear.

He first of all attacked the house surgeon at the Infirmary, Mr. Hutchinson, making charges of neglect of patients and inattention to orders against him. He also on one occasion pushed Mr. Hutchinson out of a ward for no obvious reason. The house surgeon appealed to the Lay Board for protection, and they asked the Medical Committee for their opinion of his work. In reply, the Medical Committee, eleven members being present, resolved unanimously that the conduct of Mr. Hutchinson had been such as to merit their approbation and confidence.

Two years later the trouble cropped up again, other surgeons, Messrs. Bill, Killer, Ward, and Hamilton, joining Simmons in another attack on Hutchinson, and demanding his dismissal. The Trustees again supported the house surgeon. Three surgeons therefore resigned, but Simmons did not, nor did Mr. Hamilton. An amusing commentary on this appeared in a letter addressed to the Trustees by "A calm observer," entitled "An explanation of the real causes of the present disputes at the

Manchester Infirmary, with suggestions for the restoration of tranquility," 1805. After stating some of the incidents, and referring to the resignation of the three surgeons, the writer says:—"Mr. Simmons confessed at the time that *honour* called upon *him* to resign, but that *expedience* urged him to stay. I suppose Madam *Prudence* was of the party, though her name was not mentioned; and that she it was who gave the casting vote. Be this as it may, he complied with the suggestion of expedience in opposition to the call of Mrs. *Honour*."

Another controversy was with Dr. John Hull, a very able member of the Lying-in Hospital staff. In 1798 Simmons published a small work on "Reflections on the propriety of performing the Cæsarean operation, etc.," in which he condemned the operation, and stated that he hoped that in future all trace of it would be banished from professional books; "for it can never be justifiable during the patient's life, and stands recorded only to disgrace the art."

Hull, in his "Defence of the Cæsarean operation, 1798," criticised Simmons's theories very ably, but inadvisedly quoted an epigram written in Latin by a French surgeon, which abused in strong language

another French gynæcologist, whose opinion Simmons had referred to in support of his own views of the operation.

Simmons replied with his "A detection of the fallacy of Dr. Hull's defence of the Cæsarean operation" (no date), in which he rebuked Hull for lack of courtesy in not sending him a copy of the book, it being addressed in the form of a letter to Simmons.

Later he "adumbrates"—he uses this word, he says, to shew Dr. Hull that he is somewhat of a scholar himself—the epigram quoted by Hull, and suggests a free translation of it, beginning

> Say, are you a surgeon, quack, or doctor bred;—
> For sure one trade's enough for such a head—
> Nor Scotch, nor English schools gave your degree,
> Cheaply dubbed Doctor by Dutch courtesy, etc.

Hull was a graduate of Leyden University, it may be remarked. It is stated that Ferriar, with whom Simmons was on friendly terms at this time, inspired the translation of the epigram.

The final round of this battle was in Hull's work "On Mr. Simmons's detection and defence of the Cæsarean operation, 1800."

That part of Hull's work dealing with the opera-

tion itself was extremely able, and some of the opinions and conclusions which were stated in it are still accepted. Simmons's arguments, on the contrary, were feeble and illogical.

In later life Hull and Simmons forgot their differences, and became very friendly.

Simmons also fared rather badly in the "Case of Elizabeth Thompson." The patient, a deformed woman, was seen first in consultation, at Ashton-under-Lyne, by Simmons. He recognised it as a case requiring immediate operative treatment, and evidently saw that only one operation, namely, the Cæsarean section, was likely to be of any use. He had, however, publicly stated the opinion that such an operation was a disgrace to the art of surgery, and therefore he recommended treatment by the crotchet. But he said he could not undertake the case so far away from Manchester, and advised that the woman should be sent into hospital there—not under himself at the Infirmary, where he could have used the crotchet, but to the Lying-in Hospital, where he knew the Cæsarean operation would be, as it actually was performed.

A good deal of correspondence took place over the case, and the proceeds of the sale of one letter

JOHN HULL.

on the subject by Mr. Tomlinson, were devoted to the use of the child whose life was saved by the operation.

Simmons claims to have been the first to suggest the desirability of founding a Lying-in Charity in Manchester. Thus in the preface to his "Reflections on the propriety of performing the Cæsarean operation," he says:—"In the year 1790 I proposed to the Trustees of the Infirmary to annex midwifery to the other objects of their charity, there being no establishment in the town for that purpose. Soon after my proposal was made, the present Lying-in Hospital was instituted without my knowledge; but the Trustees adopted so much of my plan as is contained in the following rule, which is now inscribed on every home-patient recommend:—

"Poor married women will be attended in labour by the surgeon when the midwife *cannot deliver them*, on application being made at the Infirmary in the day, and to the bathman at the gate of the Infirmary in the night."

Along with this proposal to the Trustees, Simmons, who was not then on the Infirmary staff, offered himself for the post of "Man-midwife" to the hospital, but the Trustees decided that they could not

undertake this new work, which they thought ought to be arranged for in a separate charity. This was done the same year by the Whites (q.v.) and Halls (q.v.) when they left the Infirmary.

Simmons was a frequent writer to the medical journals of the day, but he was rather inclined to make his communications the more lengthy by adding to them the experiences of his colleagues, whom, it is true, he mentioned by name. He was not sound or scientific, and his writings are of little value.

In his "Observations on cancer," 1798, he refers to the organised attempt on the part of the Infirmary staff to study this disease carefully. He was gratified by reading an account of the cancer pavilion, founded about 1790 at Middlesex Hospital, and being desirous of co-operating in the investigation of the disease, drew up an address, which was presented to the Trustees of the Infirmary in 1792. The address pointed out the importance of a careful study of cancer, and said that the staff intended to keep a journal for the purpose, and record in it an exact account of each case which came into the hospital, and of its progress and treatment.

The Trustees approved of this proposal, and to help the investigation rescinded as much of the

fiftieth rule of the hospital as related to the admission of incurable cases, in favour of cancer patients.

A work with the title "Experiments on the supposed origin of the cowpox," appeared in 1798. Simmons was interested in Jenner's work on the cowpox, and applied to him for some of the matter to inoculate the inhabitants of the town with, but at that time Jenner had none. Simmons then made experiments to see if the eruptive diseases of brute animals are communicable to man, and *vice versa.* Although he experimented on a herd of thirty cows, his observations wanted that scientific thoroughness which is essential to obtain successful results. He tried to produce the cowpox in cows and in children by inoculations with erysipelatous fluid obtained from the heel of a horse suffering from a disease called "the grease," but these experiments proved "that the cowpox poison does not originate in the horse's heel." He was also unable to produce the smallpox in cows by inoculations from smallpox patients.

It is interesting to note here, that although Jenner's work on vaccination was not commenced until 1796, the physicians at the Infirmary had begun in 1784 to inoculate people with material obtained from smallpox patients. It was not until after 1798, when

Jenner published his celebrated "Inquiry into the causes and effects of the variola vaccinæ, a disease discovered in some of the western counties of England, particularly Gloucestershire, and known by the name of cowpox," that vaccination or the inoculation of lymph obtained from cows or calves suffering from vaccinia as a preventative of smallpox began to be widely practised.

Simmons died at his house in George Street, about June, 1830. A short note about him appears in the North of England Medical and Surgical Journal, 1830-31, p. 131 :—"During a period of nearly 40 years Mr. Simmons had been connected with the Manchester Infirmary, as senior surgeon, and the welfare of that establishment was always the prevailing care of his vigorous and active mind. Remarkable for his firmness, decision, and punctuality; for consistency of character, and a high sense of honour; for his unceasing attention to the duties of his profession, and a strict determination to maintain its dignity and respectability; the character of Mr. Simmons presented many admirable features, and his memory will ever remain dear to his pupils, who will gratefully recollect the peculiar force and clearness of his precepts, and now feel the benefit

of the strict order and discipline which he invariably enjoined."

The following more detailed account of Mr. Simmons's work and character was written by Dr. J. L. Bardsley, who was probably the author of the preceding note also.

"He attended the hospital practice indefatigably, and took a great deal of pain in teaching the students, giving them intelligent instruction and sound practical advice.

"Whilst he never delivered regular courses of lectures on surgery, it was his practice to give clinical remarks whenever he went round his cases. He tried at one time to induce his colleagues at the Infirmary to co-operate with him in the delivery of lectures on the several branches of medical science, but failing to obtain their encouragement of the plan, it was ultimately abandoned. When at a later period the School of Medicine was started, he gave it his earnest encouragement. He was a successful but not brilliant operator, and being endowed with a quick eye, steady hand, and great self-control, he always conducted his operations with ease and confidence. His after treatment was excellent. He mostly visited operation cases three or four times on

the day of operation, and then twice daily, until all danger was past.

"He was remarkable for his scientific treatment of fractures, very particular and neat in the application of splints and bandages, and good at saving a limb with a compound fracture, his judgment being ready and sound.

"In strangulated hernia he used taxis with singular success, and employed the knife for the removal of the stricture much less frequently than most hospital surgeons.

"An earnest and able advocate of vaccination, he corresponded with fervour on the subject, and notwithstanding the occurrence of a few cases of small-pox in his own practice after vaccination, he was a strong believer in this method of preventing the disease.

"In 1824 he advocated the establishment of baths, sulphurous, medicated, and vapour, at the Infirmary, and his scheme was sanctioned by the Trustees. The constant aim of his benevolent mind was to promote comforts and relieve diseases of the poor.

"He worked until a few weeks before his death, supporting the dignity and honour of his profession, not only by precept, but by example, and he was

distinguished for his upright conduct, strict veracity, inflexible integrity, and the kindly feelings of his heart." (London Medical Gazette, Vol. VI., p. 944).

References.

Simmons's own writings; Hull's writings; Renaud's Short History; Lond. Med. Gaz., Vol. VI., p. 944; Hutchinson's Pamphlet in his own defence; Tract in Hutchinson's defence by a "Calm observer," 1805; Case of Eliz. Thompson, by C. White, etc., 1799.

JOHN BILL.

Honorary Surgeon to the Infirmary, 1790 to 1804.

JOHN BILL was the son of the Rev. John Bill, of Draycot-le-Moors, Staffordshire, and was born about 1757.

He received his early education at the Manchester Grammar School.

In 1790 he was appointed Surgeon to the Infirmary, when six surgeons were elected after the resignation of all the staff of the hospital.

In 1804 he resigned his position at the Infirmary on account of the disputes between the surgeons and the house surgeon, and because the Trustees would not dismiss the latter.

Mr. Bill was quoted by Mr. Simmons, in the Medical and Physical Journal, 1815, Vol. XIII., p. 9., as treating tinea capitis in a special and successful way. He had described his method at Mr. Simmons's request. This is the only contribution of his to medical literature that has been found.

He succeeded to an estate at Farley, near Alton,

THE INFIRMARY, SHEWING THE NORTH WING ADDED, 1792-3.

in Staffordshire, in 1800, as next heir to his uncle Charles Bill, and went to reside at Farley Hall on leaving Manchester shortly afterwards. He was blind for some time before his death, which took place on April 6th, 1847, when aged 90. He is buried at Alton Church.

He married Esther, daughter of Samuel Grundy, of Baldingstone, near Bury.

His grandson, Charles Bill, is the present Member of Parliament for the Leek Division of Staffordshire.

REFERENCES.

Manch. School Reg., Vol. II., p. 240; Private information from Charles Bill, Esq., M.P.; Renaud's Short History.

ALEXANDER TAYLOR, M.D.

Honorary Surgeon to the Infirmary, 1790 to 1804.

Mr. TAYLOR resided at Paisley, and for several years followed the profession of surgery there before he came to Manchester. He took his degree of Doctor of Medicine at Glasgow University, in 1785.

In 1790 he was elected Surgeon to the Infirmary, on the increase of the staff. In 1804 (September 27th), he resigned his post at the Infirmary "from various circumstances which would prevent him from bestowing the attention necessary to his work at the hospital." His resignation, though it was accepted about the same time that Messrs. Bill, Killer, and Ward resigned, was apparently not caused by the differences with the house surgeon.

His professional reputation ranked high, especially as an operator for lithotomy. He operated successfully on two boys, and brought them both, we are told, hand in hand, before the Board at the Infirmary, when they came to return thanks.

He lived at 11, Mosley Street, in 1797, and afterwards at Liverpool with his son, where he died in 1818, aged 75.

His son John, who died in 1857, was in his day well known in Liverpool, both for his business ability and for his scientific and literary attainments. He published some "Translations from Ovid" in verse.

References.

Manch. School Reg., Vol. II., p 180; List of Graduates of Glasgow University; Renaud's Short Hist.; Infirmary Minutes, 1804.

ROBERT WAGSTAFFE KILLER.

Honorary Surgeon to the Infirmary, 1790 to 1804.

ROBERT WAGSTAFFE was the son of Mr. George Killer, who was partner in business as a hatter with John Parker Mosley, afterwards created a Baronet in 1784. He was born 1763, being baptised on December 1st of that year.

He received his early education at the Grammar School. When qualified he commenced to practice in Stockport, but soon removed to Manchester, and was elected as Surgeon to the Infirmary in 1790.

He married Jane, daughter of Holland Watson, Esq., of Stockport.

His younger brother, John Egerton Killer, was Apothecary and House Surgeon at the Infirmary from 1791 to 1795.

Killer resigned his post at the Infirmary with Messrs. Bill and Ward in 1804 owing to disputes with the house surgeon. Mr. Killer charged the house surgeon with neglect to carry out his orders as to prescriptions, but the complaints appear to have been trivial.

We are told that it was his habit to attend the poor gratuitously, prescribing for them, and giving them medicine.

The only printed communication to medical literature by Mr. Killer that I have been able to trace appeared in the Medical and Physical Journal, No. 6, 1801, page 322, and is on "Digitalis in irreducible hernia." In this paper he lectures Mr. Simmons for forming conclusions as to the action of a drug from the experience of a single case. Simmons had written to a previous number of the journal describing a case of strangulated hernia, in which taxis had been successfully performed after giving the patient a grain of powdered digitalis leaves. He stated that a hot bath, leeching, calomel, ice, etc., had been tried without success, but that when the digitalis was given reduction was safely accomplished.

Mr. Killer lamented that reporters of medical cases frequently fell into the error of ascribing to the operation of a single remedy what was due to the effect of several. Mr. Simmons's paper was a case in point. The case reported by the latter had been under Mr. Killer, and they had tried the usual remedies to facilitate reduction of the hernia. They

tried unsuccessfully for a couple of hours, although they had greatly reduced the tumour, and then Mr. Simmons suggested the administration of a grain of digitalis leaves. This was given and in a quarter of an hour the rupture was reduced successfully. Mr. Killer pointed out that there was hardly time for the digitalis to act, and that the other remedies combined were more likely to have been responsible for the reduction.

In 1831 he went to live at Farley, near Alton, in Staffordshire, and lived in a cottage on his friend John Bill's estate, where he died May 25th, 1841, aged 77. He was buried at his own request in the cemetery belonging to the Bill family in Alton church, and there is a monument to him in the church erected by Mr. Bill.

"Respected by the rich and regretted by the poor to whom he was to the last a most liberal and unwearied benefactor."

REFERENCES.

His own writings; Manch. School Register, Vol. II.; The Rector of Alton; Owen MSS.; Renaud's Short History; Cheshire Notes and Queries.

MICHAEL WARD, M.D., M.R.C.S.

Honorary Surgeon to the Infirmary, 1790 to 1804.

In 1790 Mr. Ward, then Physician to the Buxton Bath Charity, was appointed Surgeon to the Infirmary.

In 1804 he resigned with two surgical colleagues.

He was the first to point out that infantile leucorrhœa might be an idiopathic affection and not necessarily produced by traumatic causes. This had a most important medico-legal bearing, and he observed it in time to prevent a miscarriage of justice in a case by correcting an opposite opinion, given in the witness box by himself, through which a man had been sent for trial to the Assizes.

Ward was much interested in opium as a drug, and wrote several papers and published one work on its applications to treatment.

He lived to be a very old man, leading an active life about 1831.

References.

His own writings; Renaud's Short History.

GAVIN HAMILTON.

Honorary Surgeon to the Infirmary, 1790 to 1827.

HAMILTON was originally an army surgeon in the Queen's Bays. He came to Manchester with his regiment, and settled in the town.

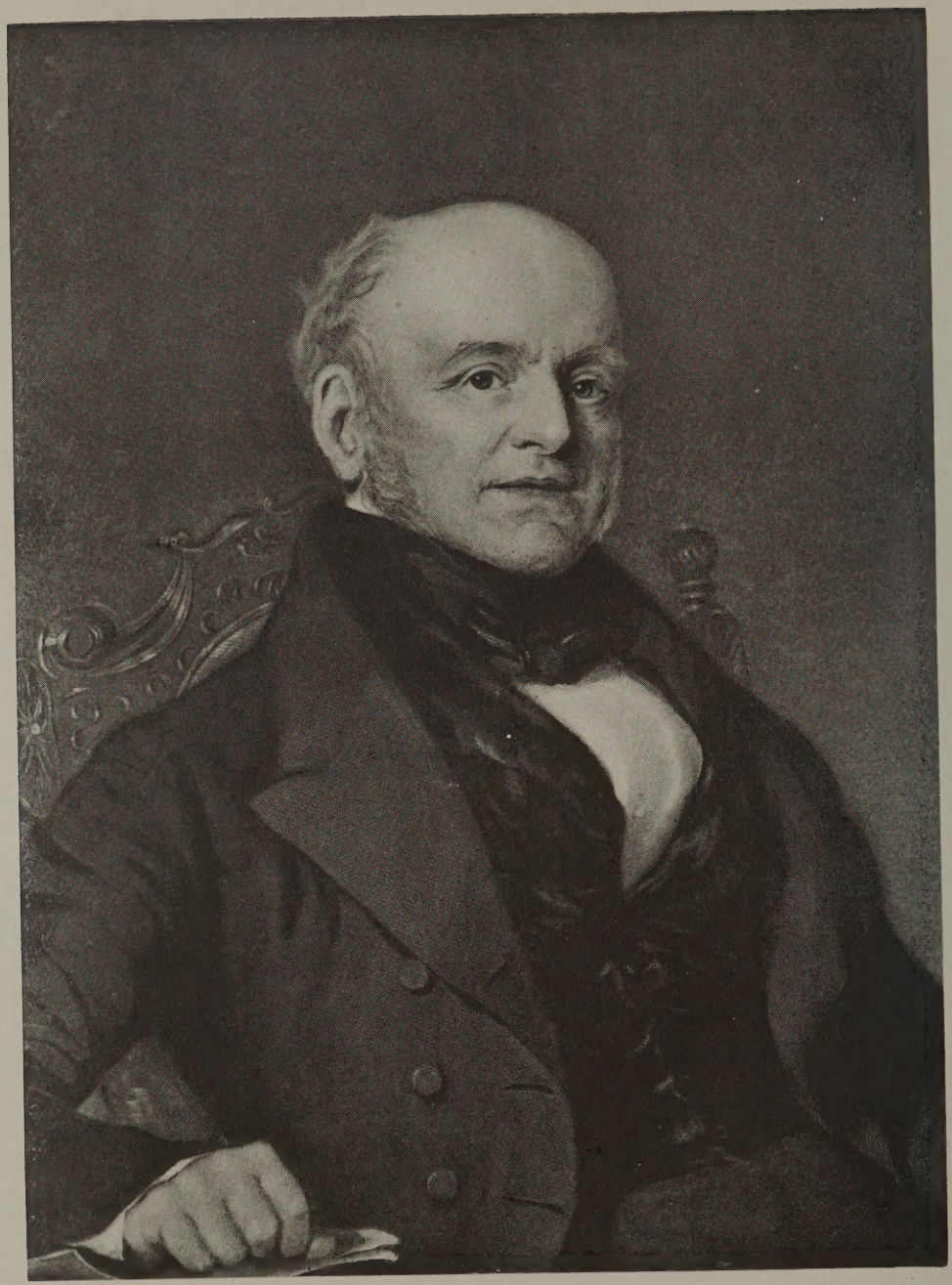
In 1790 he was appointed Surgeon to the Infirmary, on the increase of the staff. He has left no papers that I have been able to find.

In 1799 Hamilton was married at St. John's Church, to Miss Letitia Margaret Ward, daughter of Mr. T. A. Ward, manager of the Manchester Theatre, who was a celebrated actress in her day.

In 1827 he resigned his position at the Infirmary. He lived at the end of his life in Greenheys, where he died August 25th, 1829, aged 73. He was buried at St. John's Church, in the fourth grave in the twelfth row.

REFERENCES.

Man. School Reg. III., p. 111; Owen MSS.; Burial Register, St. John's Church.



EDWARD HOLME.

EDWARD HOLME, M.D., F.L.S.

Honorary Physician to the Infirmary, 1794 to 1828.

Physician Extraordinary, 1829 to 1847.

EDWARD HOLME, the son of Thomas Holme, a gentleman farmer, was born at Kendal, on February 14th, 1770. His father owned the small estate of Cracalt there, and this Holme inherited. The moderate income derived from it helped him over the long years of waiting in his profession.

He was educated at Sedbergh School, and then in 1787 came to the Manchester Academy, where he continued his studies. For two years he lived in Dr. Percival's house as his private secretary and reader.

In 1790 he went for a couple of years to Göttingen, mastering the German language and studying general literature.

From Göttingen he moved to Edinburgh in the winter of 1791, and prosecuted his medical studies, returning to the continent, to Leyden this time, in 1793, to obtain his degree of Doctor, with his

thesis "de Structura et usu vasorum absorbentium." This thesis is described as being a monument of industrious research and critical judgment, and a masterly exposition of all that was then known as to the anatomical structure and distribution of that system of vessels. In 1792 Holme came to Manchester, and settled in practice as a physician. He was elected Honorary Physician to the Infirmary the same year.

For many years progress with Holme was very slow, and it was not until Ferriar died in 1815 that he was at all successful in practice.

Holme joined with his colleagues on the Infirmary staff, and with Percival in the movements for establishing fever hospitals, and for the improvement of the conditions of labour in the mills. In 1802 he wrote the preface to the Annual Report of the Board of Health, giving a review of the beneficial work done in the previous twelve months. This is the only publication of Holme's on medical subjects that appeared.

The year Holme settled in Manchester he joined the Literary and Philosophical Society, and was elected as one of the secretaries, an office which he held for four years. Then, after being a vice-president

for forty-six years (1798 to 1844), he was elected President in 1844, and held the office until he died in 1847.

Holme contributed several papers of antiquarian and general literary interest to the society, the more important being: "On the progress of sculpture to the time of Phidias, with remarks on the charges against him," and the "Life of Sophocles." These were unpublished. He wrote no medical notes or observations.

He was one of the founders of the Portico Library, and its president for twenty-eight years; the first president of the Manchester Natural History Society, and of the Chetham Society; president of the Provincial Medical and Surgical Association, at the Manchester meeting in 1836; and of the British Scientific Association, at the York meeting of 1831.

He resigned his post of physician at the Infirmary in 1827, and was elected Physician Extraordinary in 1829.

Holme was never married. He died on November 28th, 1847, aged 78, and was buried in the Ardwick Cemetery, near his old friend John Dalton, whom he was really instrumental in bringing to Manchester.

His fortune of about £50,000 was left to the

University College, London, and his large library of several thousand books was sold.

We have, fortunately, left for us excellent accounts of Holme's most interesting personality.

Dr. Holme was, we are told, one of those men who are mentioned with reverence rather for the possession than the exertion of uncommon abilities.

Whether from a severely fastidious taste, which he was unable to satisfy, or from his mental tendencies impelling him rather to accumulate knowledge than to extend its boundaries, he has left to the world no measure of his intellectual stature. The only printed composition, besides his inaugural thesis, is a brief note on the correct reading and right interpretation of a partly-effaced Roman inscription. His boundless knowledge and extraordinary mental power was chiefly manifested in social intercourse, and especially in the form of animated discussion. His fame, therefore, did not extend beyond the circle of his friends and contemporaries.

He was largely endowed with a faculty of exact and vigilant observation.

His diagnosis was characterised by breadth, saliency and direct practical bearing rather than by that subtle analysis and exact localisation of disease

which the French pathologists were then attempting especially in maladies of the thoracic cavity.

He was not minutely conversant with medical literature of his time, and had not kept pace with recent progress of morbid anatomy and pathology in France, but he bore down at once with unhesitating sagacity on the main features of disease.

His interrogatory was concise and strictly relevant; and his practise prompt, simple and energetic. In prognosis more than ordinarily cautious, ever averse to hazard conjectures or predictions as to the future, and when pressed with such inquiries he was never at a loss in evading or authoritatively over-ruling them.

His presence, countenance, and personal bearing were well fitted to inspire respect. He had a massive, voluminous head, and especially that ample breadth of forehead, which is generally the sign of high intelligence. His manner, always vigorous, became energetic and authoritative when he was excited by argument.

He used to get "impetuously warm" in discussions with some of his friends. His mind was more prone to dwell on detailed knowledge than to soar from thence to larger prospects and loftier

generalisation. Memory was the strongest feature of his mental organisation. This was not only remarkable for its tenaciousness, but for the readiness of its response when invoked. His reasoning faculty was scarcely of strength commensurate with that of his memory; thus he was not so happy in discussing questions to be resolved by long inductive process as those which were merely dependent on a reference to facts or a weighing of authorities. He had no great warmth or mobility of imagination, and was therefore decidedly wanting in susceptibility to the emotion kindled by poetry and by the higher philosophy.

His affections were deep, generous, and fervent, and gave birth to friendships characterised by their warmth and unswerving constancy.

To those under his medical care his manner was, in essentials, kind and encouraging. It was not his habit to give way to much expression of sympathy, and he at times betrayed some impatience and abruptness when urged with questions which he did not deem it judicious or convenient to satisfy. But these signs of irritability were never more than momentary, and could not cause serious pain to those who knew that the same warmth of temperament

was in him the parent of the most generous affection and of the most actively beneficent virtues. He was liberal with his fees when the position of his patients required such. His bearing in consultation, and indeed in all the intercourse of life, towards the younger members of his profession was ever characterised by benevolent courtesy, kindly encouragement, and invaluable counsels.

Having erected for his own governance a high standard of moral rectitude, he was severe in his requirements from others of unsullied morals and scrupulously honourable bearing, and he was known to have peremptorily declined meeting in consultation one who, as he conceived, had transgressed these laws in the private relations of life.

He maintained in Manchester the just rank and high station of medicine as a liberal profession, as the worthy calling of an enlightened scholar and of a high-minded gentleman.

Dr. Percival used jocosely to call Holme a walking dictionary, so extensive and so readily available was his knowledge in almost every branch of literature and science. He was specially interested in antiquarian subjects, heraldry, and genealogy.

He had a large library of general books, which

were fully accessible to the younger members of his profession.

His residence for many years was a spacious house at the top of King Street extending through to Chancery Lane. On the first floor were what he himself termed his "happy rooms." His library, a spacious apartment communicated by a dark passage with his study, and in these rooms he passed the greater part of his time after his withdrawal from the practise of his profession. The rooms were never dusted for a generation. His books were all over the walls and on the floor, but he knew where any particular one was, even if he had not referred to it for twenty years.

Four or five of his other rooms were full of heaps of books, as was his bedroom also. The only furniture besides the book shelves in the study, which was a dark gloomy room, smaller than the library, was a couch on which he sat, and a table. He smoked incessantly, his favourite pipe being a long hookah, the bowl of which rested on the floor so that he could pursue his reading with both hands at liberty. Of later years he used to retire at ten o'clock to his study, take off his coat, put on a flannel dressing gown kept for the purpose, and with a good

fire and an ample supply of light and tobacco and a pewter pot of porter, he spent the greater part of the night reading, retiring to bed only at, or after dawn and rising generally not earlier than noon.

REFERENCES.

A Biog. notice by W. C. Henry, Trans. Proc. Med. and Surg. Ass., 1848, p. 97; Manc. Guard., 1847, Dec. 1st, etc.; Manch. School Reg. I., p. 44; Baker's Memorials; Renaud's Short History; Dict. Nat. Biog.

ALEXANDER BERTRAM, M.D.

Honorary Physician, September to December, 1794.

An Alexander Bertram graduated at Edinburgh in 1777 with a thesis entitled "de Phrenitide," but whether this is the same man as the Infirmary physician I cannot say.

He was appointed Honorary Physician on September 25th, 1794, and resigned in the following December.

Reference.

Minutes of Infirmary Committee, 1794.

SAMUEL CAVE, M.D.

Honorary Physician to the Infirmary, June to December, 1797.

SAMUEL CAVE came from Bristol, I believe. In the list of graduates of Leyden University is the name of Samuel Cave, "Bristoliensis," as having taken the degree of doctor of medicine in 1779. He was afterwards a physician or surgeon in the army, and when he was elected to the Infirmary as physician, he was living at Abergavenny. His period of office at the Infirmary was very limited. He was appointed Honorary Physician, at the annual meeting of the trustees, June 22nd, 1797, but resigned in December of the same year, and for reasons which are entirely to his credit. In December he wrote a letter to the weekly meeting of the Trustees, complaining of the custom of dispensing medicines without putting on the vessel containing them any printed or written directions as to how they were to be employed. He pointed out the impropriety of this, and of the danger of the custom of giving verbal directions only. "Sometimes these directions are given to children, sometimes to

blockheads, and sometimes to the patients themselves, who, it may be, are weak in memory or infirm in body, and liable to forget." He knew of instances of patients eating their ointment. "If other members of the staff like to rub along in the old way, that was their own concern, but it was a dangerous practice," and he requests that his patients at any rate should have their medicines properly labelled. He evidently was unsuccessful in this most reasonable request, and next week he resigned his post.

References.

Graduates of Leyden Univ.; Min. of Infirmary Com., 1797.

JAMES JACKSON, M.D.

Honorary Physician to the Infirmary, 1800 to 1805.

VERY litttle information has been forthcoming concerning Dr. James Jackson.

He was elected as Honorary Physician to the Infirmary in 1800, and held this post until 1805, when he resigned.

He was an active member of the Board of Health of the town and supported the fever hospital question with some ingenious arguments, devised not only to appeal to the finer sentiments of the charitably inclined, but also to touch their pockets.

Thus in the preface to the annual report of the Board of Health in 1801 his last argument runs, "In proportion as the fever wards afforded a higher chance of recovery than their own dismal abodes, Manchester would probably contain fewer widows and orphans, and surely money would be better employed in providing the best means of preserving the parent than in rearing his offspring after his decease; who for the most part, are thrown upon the

town, to continue the burden for years; deprived, too, of the advantages of paternal tuition, and of the virtues which are awakened by domestic endearments."

In 1804 he wrote "A letter to the Trustees of the Manchester Infirmary, Dispensary, Lunatic Hospital, and Asylum." This letter was on the recent events which culminated in 1804 in the resignation of three surgeons from the Infirmary, and was a plea for a more harmonious administration of the charity.

Its publication was discussed by the Trustees of the Infirmary, but Jackson apologised for unintentionally causing offence to them by an unhappy choice of words, and the matter was allowed to drop.

He died August 17th, 1806. Harrop's Manchester Mercury, August 26th, 1806, says, "On Sunday se'nnight, at Liverpool, died Dr. James Jackson, lately one of the physicians to the Infirmary. He was on his way to Greenock, intending to have gone thither by water."

REFERENCES.

Proc. Board of Health of Manch., 1806; A Letter to the Trustees of Manch. Infirmary; Harrop's Manch. Mercury, Aug. 26th, 1806.

JOHN WILLIAM NORRIS, M.R.C.S.

Honorary Surgeon, 1804 to 1805.

Norris was admitted a Member of the Royal College of Surgeons in 1803. In 1804 he offered himself to the Trustees of the hospital as Honorary Surgeon, when the staff was increased to six surgeons and six physicians, and he was appointed, making the fifth surgeon, about October, 1804. But at the beginning of 1805, January 28th, he resigned, owing to the "occurrence of particular circumstances."

Reference.

Min. Infirmary Committee.

BENJAMIN GIBSON, M.R.C.S.

Honorary Surgeon to the Infirmary, 1804 to 1812.

BENJAMIN GIBSON was born at Newcastle-on-Tyne in 1774. He was educated at Richmond, in Yorkshire, and then apprenticed for five years to Mr. Ingham, a surgeon of Newcastle with a large practice in the town and surrounding districts.

In 1796 he went to London to study anatomy under Dr. Baillie, at that time the most eminent teacher in the Metropolis. Gibson was an unusually good dissector, and many specimens of his preparing, especially of the organs of sense, were mounted for lecturing purposes, a series of dissections exhibiting the structure of the ear being put in the museum of the Edinburgh University.

After spending two winters in London, Gibson visited Edinburgh where he remained about a year in further medical study.

In 1799 he removed to Manchester as assistant to Charles White, who was desirous of retiring somewhat from his professional work. White had

written to the professor of anatomy at Edinburgh and to some of the London teachers, asking if they knew of a likely man to assist him, and they all, independently, recommended Gibson. As soon as Gibson came to Manchester he began lecturing on anatomy in Charles White's museum in King Street. He also gave a course of lectures on the gravid uterus to the students.

His connection with Charles White lasted for nearly eight years, and when he commenced to practice on his own account, his well-known skill as an operating surgeon, especially in the delicate manipulations necessary in the treatment of diseases of the eye, soon brought him considerable work.

In 1804 he was appointed Surgeon to the Infirmary, after many of the staff had resigned. He was assistant surgeon to the Royal Manchester and Salford Volunteer Regiment of Infantry, and dedicated to the colonel and his officers his "Instructions for the application of the tourniquet, chiefly intended for military use," a pamphlet which he published in 1803.

Gibson was naturally of delicate constitution, and the hard work which his interest in and enthusiasm for his profession entailed probably helped to shorten

his life. For some time he shewed symptoms of predisposition to phthisis, which eventually attacked him, and caused his death at the age of thirty-seven. The disease made rather slow progress, and he was able to work at his book on the eye until a few days before he died.

Gibson was unusually successful as a lecturer on anatomy, a prepossessing appearance, an agreeable and distinct, though somewhat weak voice, a lively interest in his subject, expressed by his animated countenance and manner, and above all the perfect knowledge of his subject, and the neatness and lucid order of his demonstrations, singularly fitted him for this work.

Always freely communicating any improvements in, or new methods of treatment which were constantly suggested to his fertile mind, Gibson despised those who attempted to conceal any professional discovery, either with a view to add to their own reputation, or to increase their professional incomes. These feelings were specially acute towards the end of his life, and led him, about six months before he died, to publish a paper in the Edinburgh Medical and Surgical Journal, Vol. VII., 1811. on "The use of the couching-needle in infants of a few months old." It was known that the operation of

couching could be performed with safety on young children suffering from congenital cataract, and on infants, but this practice was not generally adopted, those born with cataract being commonly considered as unfit subjects for an operation until they were of an age to give their consent to it themselves. Gibson, however, used to operate on infants and young children, and by his long and extensive practice with an easy and successful mode of performing it, removed from the minds of surgeons the imaginary difficulties and disadvantages which they attached to the operation on such young subjects. He wrote this paper to lay open to the public an operation which he thought was being claimed as the invention of another surgeon, who was trying to make capital out of its secrecy.

Gibson's most pretentious work was one on "Practical observations on the formation of an artificial pupil, etc.," which he published in 1811. He dedicated this book to Dr. Ferriar who attended him in his long illness, during which it was written. The work is divided into four sections—the history of the operation for forming an artificial pupil; a description of the operation; a new method of extracting soft cataracts; and an account of the

extraction of several kinds of membranous cataracts. It was illustrated by drawings done specially for it by Mr. John Atkinson Ransome, of the Infirmary.

Gibson died at Ardwick on March 6th, 1812, and was buried at St. John's Church, the register noting that he died of consumption. Inside the church there is a mural tablet to his memory. The inscription says that he "was endowed with a quick perception, a sound understanding, a discriminating judgment, and that still higher talent, an inventive genius, which, aided by extraordinary skill in surgical operations, enabled him to triumph over many of the difficulties of his profession. In him were united firmness of purpose with humane attention to suffering, and extensive knowledge with urbanity and gentleness of manners."

The tablet has an error of one year in the date of Gibson's death, 1812 being the correct date, and not 1811 as it says.

In the "Poems and other writings," by Edward Rushton, the poet, political writer, and journalist, of Liverpool, are "Lines addressed to Benjamin Gibson, Oculist, of Manchester."

Rushton when a youth contracted ophthalmia on a ship in the tropics, and this destroyed the sight of

one eye, and left the other blind from opacity of the cornea.

The lines begin :—

O Gibson, ere those orbs of thine
Received the sun's resplendent light,
In far-off regions these of mine
With many a pang were closed in night.

For thirty-three years he was completely blind in spite of treatment.

From men of skill on Mersey's strand,
Whose far-famed science nought avail'd,
To men of skill throughout the land,
I pass'd, but every effort fail'd.

* * * * * *

When lo! by rigorous duty sway'd,
To thee, Oh Gibson, I applied,
And soon by thy transcendent aid
The new form'd opening light supplied.

Gibson scraped the opacity from the surface of the cornea and renewed Mr. Rushton's sight in the right eye, so that he could see to read and go about by himself.

Gibson's death was referred to in verse by his contemporary, Dr. Kinder Wood, in "A prospect of Manchester and its neighbourhood from Chamber, upon the rising ground adjacent to the Great North Road." 1813.

Lo! pensive genius o'er her Gibson's bier,
Hangs the pale wreath, and drops the silent tear;
Decks with the laurel and the cypress round
That hallowed turf which forms his sacred mound.
He like the brilliant streamers issuing forth,
O'er the high arch of heav'n from the cold north,
With splendid radiance caught the raptur'd eye;
Blaz'd out a star, but blaz'd alas! to die.
Oh! loss by suffering darkness still deplor'd;
Oh! name still bless'd by those his hand restored. . . .

Dr. Wood in a note adds that Gibson's fame as an oculist had never been exceeded except in the Metropolis. His genius was penetrating, and judgment solid; of a clear head and steady hand; attentive, tender, and humane; of a remarkable prepossessing address and suavity of manner, admirably calculated for ensuring confidence.

REFERENCES.

Ed. Med. and Surg. Jour., Vol. X.. 1814, p. 1; Med. Phys. Jour., Vol. 27, p. 38; Bur. Reg. St. John's Ch.; Gibson's own writings; Poems of Edward Rushton, 1824; Kinder Wood's "A prospect of Manchester."

JOHN THORPE, M.R.C.S.

Honorary Surgeon to the Infirmary, 1804 to 1833.

JOHN THORPE was admitted as a Member of the Royal College of Surgeons, and also elected Surgeon to the Infirmary in 1804.

Little is to be found about him beyond the facts that he lived in Cock Gates, Withy Lane, in the eighteenth century, and in King Street, in 1829.

He was the father of Robert Thorpe.

His name appears on the pamphlet concerning the case of Elizabeth Thompson.

In 1833 he resigned his position at the Infirmary, and died on July 2nd of the same year, aged 69.

REFERENCE.

Man. Sch. Reg. II., p. 218.

HENRY DEWAR, M.D.

Honorary Physician to the Infirmary, 1804 to 1808.

HENRY DEWAR, who was born in Scotland, was an army surgeon in the early part of his medical career, being attached as an assistant surgeon to the 30th or Cambridgeshire Regiment of Foot, and saw service in Egypt.

He was a graduate of Edinburgh University, obtaining his degree of Doctor in 1804, his thesis being entitled "de Ophthalmia Ægypti."

He was on the Manchester Infirmary staff before June, 1805, and held office for about three years, resigning before June, 1808. He then removed to Edinburgh.

He was in Manchester in the spring of 1808, and read a paper before the Literary and Philosophical Society in April of that year, "On the principles by which the importance of foreign commerce ought to be estimated." An appendix to this paper, dated January 12th, 1811, from Lassoddie, by Kelty Bridge, was communicated to the society

by letter in 1811, and appears in the same volume of the Memoirs of the society.

Whilst at Manchester he also published a paper on "The fire and choke damp of coal-mines."

After returning to Edinburgh he became a Fellow of the Royal College of Physicians and of the Royal Society of that town, and was a lecturer in medicine at the Medical Institution there.

He wrote several papers on medical and general subjects.

REFERENCES.

Callisen Med. Schrift. Lexicon, Vol. 5, p. 170; Watt's Bibliotheca Britannica; His own works.

PETER MARK ROGET, M.D., F.R.S.

Honorary Physician to the Infirmary, 1805 to 1808.

PETER MARK ROGET, the son of a Pastor of the French Protestant Church, Threadneedle Street, London, was born at London, January 18th, 1779. His father was a native of Geneva. When young, Roget showed a distinct talent for mathematics and taught himself the elements of the various branches. He studied medicine, classics and mathematics at Edinburgh, and obtained his degree of Doctor there in 1798, with a thesis entitled, "de Chemicæ affinitatis legibus." An attack of typhus fever caught in the wards of the hospitals was nearly fatal to Roget. After leaving Edinburgh he attended lectures at the London schools.

Roget began to write very early. In 1798 he wrote a letter which was published in Beddoes's "Essays on the cause of pulmonary consumption," and in 1799 another on the "Non-prevalence of consumption among butchers, fishermen, etc."

In 1799 he wrote "A communication on the

PETER MARK ROGET.

effects of nitrous oxide"—then newly discovered—which appeared in Davy's researches.

In 1802-3 Dr. Roget was travelling on the continent as tutor to the sons of John Philips, of Manchester. They were staying at Geneva when he suddenly found himself a French prisoner, being included under Napoleon's order to arrest all the English within his dominions; from which liability the two young Philips were held exempt, as being under eighteen. Dr. Roget was on the point of being sent with the other prisoners to Verdun (there to remain till the restoration of 1814), when he claimed and obtained his release by insisting that, as the son of a citizen of Geneva, he was entitled to the rights of a French subject. Availing himself of a passport granted to him for Paris, he made a narrow escape with his young pupils across Switzerland, and back to England through Germany and Denmark, landing at Harwich on November 22nd, 1803. He then went to Edinburgh for further study, and in the autumn of next year attended the first Marquis of Lansdowne as his private physician for three months.

At the end of 1804 Roget, invited by friends who thought there was a vacancy in the profession

caused by Percival's death, moved to Manchester, and was appointed Physician to the Infirmary the same year.

He lost no time at Manchester in joining Gibson in the teaching of the medical students. Gibson lectured on anatomy, and Roget took physiology for his subject. Roget's course of lectures began on January 29th, 1806, and terminated in March of the same year, eighteen lectures in all being delivered. These lectures were probably given in Charles White's museum, King Street.

A printed copy of the syllabus of this course of lectures is in the possession of Dr. Roget's son, Mr. J. L. Roget, by whose kind permission I was enabled to see it. The title page is as follows, "Syllabus of a course of lectures on Anatomy and Physiology, by P. Roget, M.D., B. Gibson, and J. Hutchinson. Manchester, Printed at the office of Nanfan & Co., 5, Hanging Ditch." The date as given at the end of the preface is November 27th, 1805. This syllabus is specially interesting as it is probably the earliest printed outline of lectures delivered to medical students in Manchester.

Roget soon extended his subject to a course on comparative anatomy and physiology, a science

which was then exciting interest and which has thrown much light on the structure and functions of the human body.

In November, 1806, for some reason not stated, but evidently without resigning his Infirmary post, he accepted the appointment of private secretary to Lord Howick, afterwards Earl Grey (then Secretary of State for Foreign Affairs), but (to use his own words) "disliking the service," returned to Manchester, in time to begin his course of evening lectures there, in January, 1807, when he delivered fifteen lectures on animal physiology, at the rooms of the Literary and Philosophical Society, (of which society he was a vice-president for two years), which were attended by a large and respectable audience.

Mr. Roget has also shown me a copy of the syllabus of the course of lectures on "Animal physiology, with a table of the classification of animals, by P. Roget, M.D. Manchester, Printed by Nanfan and Davis, 5, Hanging Ditch, 1807."

Having acquired during his residence in Manchester that solid basis of experience and reputation which were necessary to success in the practice of medicine, Roget, on October 17th, resigned his post at the Infirmary and removed to London, where his

relatives lived. Next year he became a Licentiate of the Royal College of Physicians, and commenced his lectures on animal physiology at the Russell Institution, in Great Coram Street, Russell Square. He was also appointed as Physician to the Northern Dispensary.

At this time—1810, he began to lecture on the practice of physiology, in the anatomical and medical school, Windmill Street, which was founded by William Hunter, and he delivered courses there for several years.

He also in later years lectured on comparative physiology at the Royal Institution and the London Institution.

Roget's life in London was full of activity, which, however, bore more on the side of scientific than of practical medicine.

In 1811 he was appointed Secretary to the Medical Chirurgical Society. This office he held for eleven years; and in 1829-30 he was President of the society.

In 1814 Roget communicated to the Royal Society a paper giving a description of a new sliding scale of his own invention, which was capable of performing approximate numerical computations in involution and

evolution, and of being applied in the higher departments of analysis. This paper procured for him the Fellowship of the society. It was published next year in the "Philosophical Transactions." In 1817 he was appointed Consulting Physician to the Queen Charlotte's Lying-in Hospital, and in 1820 Physician to the Spanish Embassy.

In 1820, with Dr. P. M. Latham, Roget was asked to take charge of the medical treatment of prisoners in the General Penitentiary, Millbank, on the occasion of a severe epidemic of scurvy and dysentery. This work lasted for fifteen months.

In 1824 he married Miss Hobson, only daughter of Jonathan Hobson, Esq., a merchant of Liverpool.

On the establishment of a school of medicine at Aldersgate Street, Roget was appointed lecturer on physiology. The introductory lecture to his course was published separately.

In 1827 he formed one of a commission of three to examine and report on the supply of water to the Metropolis, more especially with reference to its salubrity.

This same year his appointment as Secretary of the Royal Society was a mark of respect to Roget's scientific attainments.

In 1831 he was appointed *speciali gratia* Fellow of the Royal College of Physicians, and next year delivered the Gulstonian Lecture on "The laws of sensation and perception," an abstract of which was published in the Medical Gazette, May, 1832.

In 1834 Roget contributed to the series of Bridgewater Treatises, two volumes on "Animal and vegetable physiology," and in the same year was elected Fullerian Professor of Physiology at the Royal Institution, a post which he held for three years.

In 1835 he was a Censor of the College of Physicians: 1836 Crown nominee for the Senate, and also Chairman of the Medical Faculty of the London University, the formation of which he had taken much interest in: 1839 examiner in physiology and comparative anatomy to the University.

In 1840 Roget retired from practice and occupied himself by preparing a work, which is another instance of his many-sided genius, and by which he is best known at the present day—namely his "Thesaurus of English Words and Phrases, classified and arranged so as to facilitate the expression of ideas and assist in Literary Composition." The first edition was published in 1852. Twenty-eight editions of this work were published in Roget's lifetime, and

one quite recently in 1901. It is interesting to note that only last year Roget's idea was applied to medicine, and a "Thesaurus of medical words and phrases" published in America.

Roget died at West Malvern, on September 12th, 1869, in his 91st year.

In addition to being a Fellow and Secretary of the Royal Society, Roget was also a Fellow of the Royal Geological, Astronomical, and Geographical, and of the Entomological and Zoological Societies; Vice-president of the Society of Arts, Member of the Royal Institution of Great Britain, of the Institution of Civil Engineers, and of the Literary and Philosophical Societies of Manchester, Liverpool, Stockholm, Canada, and New York.

For the very extensive bibliography printed in the appendix I am indebted to the kindness of Dr. Roget's son, Mr. John L. Roget, and I have pleasure in offering him my thanks for this valuable list of writings, and for other information about his father.

Some characteristics of Dr. Roget appear in the obituary memoirs in the annual report of the Institution of Civil Engineers, 1869-70, of which body he was an honorary member:—

"Those friends who know him best can say,

with confidence, that no man was more benevolent at heart, more unaffected in word or deed, or more steadfast in the simple following of what he held to be right. These qualities were accompanied by an unvarying gentleness of demeanour, a natural courtesy that was no respector of persons, and an unselfish spirit that ever restrained him from imposing upon others the task he was himself able to perform. . . . . He took a real pleasure in the mere neatness of execution of any work in hand, however trivial. . . . . When he applied himself to a task, he strove to accomplish it thoroughly; never sparing himself trouble, though ever fertile of resources for the economy of labour; but apparently following out the principle, that what is worth doing at all is worth doing well."

REFERENCES.

Information supplied by Mr. J. L. Roget, from Dr. P. M. Roget's MS. Diary; Pettigrew's Med. Pict. Gallery; Lancet, Sep. 25, 1869; Proc. Roy. Soc., 1869 and 1870.

JOHN UNDERHILL, M.D.

Honorary Physician, 1806 to 1809.

JOHN UNDERHILL was appointed Honorary Physician on June 19th, 1806.

He died on January 9th, 1809, and was buried in St. Mary's Churchyard.

Harrop's paper of Tuesday, January 17th, 1809, has the following note, "Last Monday, suddenly, Dr. Underhill, one of the physicians to the Infirmary, a gentleman highly respected by everyone who knew him."

REFERENCES.

Harrop's Man. Mercury, Jan. 17, 1809; Burial Reg., St. Mary's Church.

JOHN ATKINSON RANSOME, F.R.C.S.

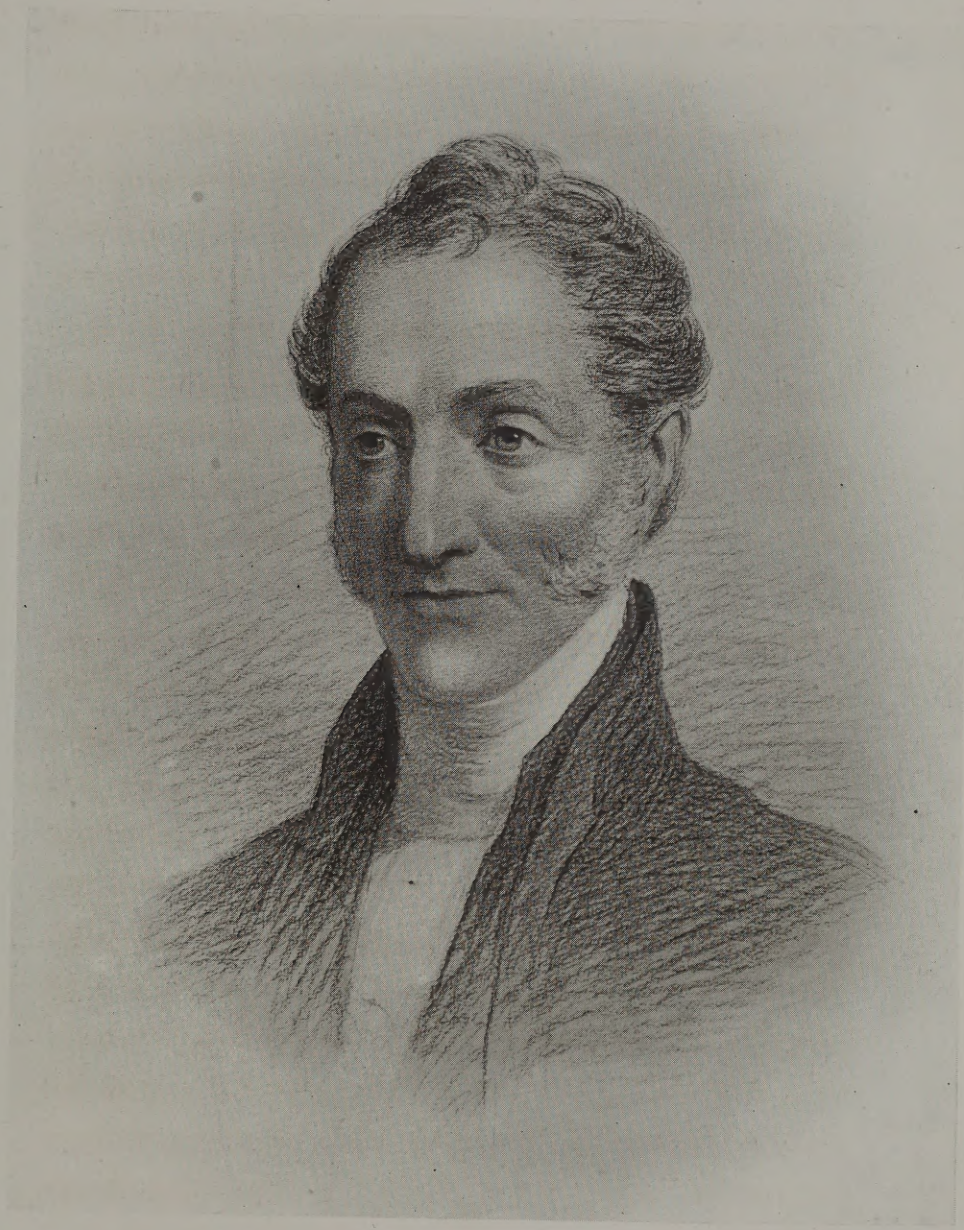
Honorary Surgeon to the Infirmary, 1806 to 1837.

JOHN ATKINSON, the son of Thomas Ransome, manager in Messrs. Gurney's bank, was born on March 4th, 1779, at Norwich.

He was apprenticed to a surgeon at Lynn and finished his professional education in London, where his ardour and diligence in the prosecution of his studies attracted the attention of his teachers, especially that of Mr., afterwards Sir Astley Cooper, between whom and Ransome a life long intimacy sprang up.

His first efforts to establish a practice in Ipswich, and then Bury St. Edmunds were unsuccesssful, but at Manchester he found his opportunity and his enthusiasm for his profession, his great ability and his personal merits were recognised, and he became one of the most prominent surgeons in the town.

In 1806 he became a Member of the Royal College of Surgeons, was appointed Honorary Surgeon to the Infirmary, and joined in the teaching of the students. In conjunction with James Ainsworth he delivered, in the first decade of the nineteenth century extending to 1814 or 1815, courses of lectures on anatomy and physiology in the lecture room of the Literary



JOHN ATKINSON RANSOME.

and Philosophical Society. This course probably followed the lectures given by Roget and Gibson in 1806-7.

The lectures, however, wanted the important aid of anatomical dissections performed by the students, and it was left for Mr. Joseph Jordan to commence the teaching of practical anatomy, which he did in 1814 in a small house in Back Queen Street—a small street lying between what is now Albert Square and Deansgate.

A printed copy of the syllabus of these lectures is now in the possession of Dr. Arthur Ransome. It is one of the earliest known printed copies of the courses of lectures which were delivered to medical students in Manchester, and is therefore of much interest.

In 1824, when Mr. Thomas Turner founded the Pine Street School of Medicine, Ransome helped with the enthusiasm which he threw into all his work, and although an interval of some ten years had elapsed since he appeared as a public teacher, he willingly consented to deliver lectures again, and undertook those on the principles and practice of surgery. He petitioned the Royal College of Surgeons in London to recognise his lectures and

accept certificates of attendance at them from students applying to be examined for the membership, and this was granted unconditionally. Mr. Joseph Ransome, son of the lecturer, stated that he believed these lectures were the first provincial ones so recognised by the College.

Mr. Ransome was an excellent draughtsman, and drew the illustrations for Mr. Gibson's work on the eye, a subject to which he himself paid special attention. He was one of the secretaries of the Literary and Philosophical Society from 1810 to 1820, and Librarian in 1809.

Mr. Ransome had a large practice as a surgeon, and most of his notes for his first course in surgery were drawn up and written down in his carriage whilst attending to his professional duties. As a surgeon he had a high and well deserved reputation for his skill as an operator in the most delicate and dangerous cases which professional men can undertake. In his lectures he always aimed at impressing upon the attention of the students the important practical truths which he had enjoyed such ample opportunity of collecting; he seldom entered upon matters of hypothesis or controversy, except to state the results of his own reasoning and experience.

His strict integrity, spotless moral conduct, and honourable bearing gained him the respect and goodwill of all those with whom he came in contact.

Mr. Ransome, who had a very large practice amongst the best families in the district, was the surgeon called in to treat one historical patient, namely Mr. Huskisson, who was fatally injured at the opening of the Manchester and Liverpool Railway in 1830. The shock from the severe injuries to one of the legs was so great, that all methods taken to counteract it were unavailing; the primary amputation of the thigh which was indicated could not be undertaken, and the patient died a few hours after the accident. There is a short account of the surgical aspects of the injury written by Mr. Ransome, in the North of England Medical and Surgical Journal of 1830 (page 263), which is, perhaps, his only contribution to medical literature, for he would never publish anything, always when referring to the subject saying, in a joking way, "Oh! that mine 'enemy' had written a book." One cannot help regretting his attitude, for Mr. Ransome was a man of much originality. He was the first to suggest catgut or silk ligatures for tying arteries, on the ground that being of animal origin, they would be more readily

absorbed. His lectures at Pine Street on surgery were also full of original matter, and were admirably adapted for holding the attention of his audience, by the facility which he possessed, to an unusual degree, of illustrating his points by cases met with in his own experience.

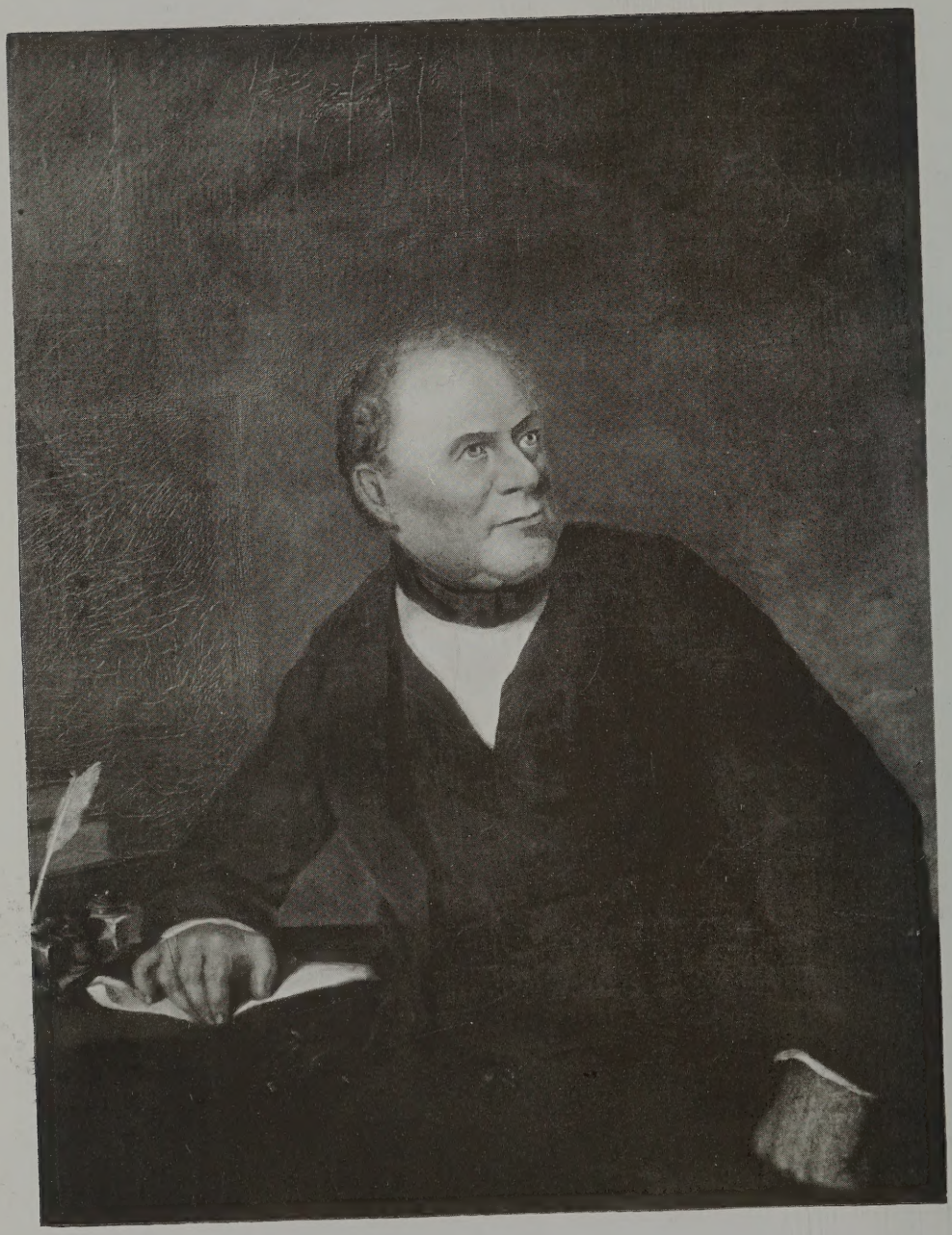
Mr. Ransome lived in Princess Street, and then at No. 1, St. Peter's Square, and finally at Old Trafford, where he died on February 10th, 1837, aged 58. He was buried behind the Meeting House of the Society of Friends, in Mount Street.

His son, Joseph Atkinson Ransome, was an honorary surgeon to the Infirmary from 1843 to 1866, and Dr. Arthur Ransome, to whom I am indebted for much of the above information, is his grandson.

The fine portrait, a chalk drawing by Bedford, from which the accompanying reproduction is taken, is in the possession of Miss Susan Ransome, of Windermere, a daughter of Mr. Ransome, who has kindly given me permission to use it here.

REFERENCES.

Chiefly private information from Dr. Arthur Ransome; Lond. Med. Gaz., 1837, Vol. XIX., p. 870; North of Eng. Med. and Surg. Jour., 1830, p. 263.



JAMES AINSWORTH.

JAMES AINSWORTH, M.R.C.S.

Honorary Surgeon to the Infirmary, 1806 to 1847.

JAMES AINSWORTH, the son of Jeremiah Ainsworth, a schoolmaster, was born at Manchester, March 5th, 1783. He was educated at the Grammar School, and about 1798 was apprenticed at the Infirmary, being then aged fifteen. One of the terms of the deed of apprenticeship was that he should be allowed a portion of the day in which to go to the Rev. Joshua Brookes for lessons in Latin, a language in which he was considered afterwards to be very proficient.

After serving his apprenticeship at the Infirmary he was resident clerk, and then, it is said, house apothecary there. The last post, we are told, he held for one year, at a time when fever was very bad in Manchester. He caught the fever himself and nearly died. It must be noted, however, that Ainsworth's name does not appear in any of the reports of the hospital as having been house apothecary.

At a later time he studied at Edinburgh University, where he had Henry Brougham, with whom he became intimate, for a contemporary.

In 1806 Ainsworth was admitted as a Member of the Royal College of Surgeons. When qualified, he returned to Manchester and entered into partnership with Mr. Thomas Henry, as surgeon apothecaries. This partnership of "Henry and Ainsworth" existed until 1814 when it was dissolved, and Ainsworth continued the surgical connection.

In 1806 he was elected Surgeon to the Infirmary, his age being only 23. He was the youngest surgeon ever appointed to the Infirmary, but not the youngest man, Dr. J. L. Bardsley being only 22 when he was elected as a physician.

In connection with Mr. John Atkinson Ransome, Ainsworth delivered a course of lectures on anatomy and physiology at the rooms of the Literary and Philosophical Society. He converted the hayloft of a stable into a lecture theatre and dissecting room. He was a skilful dissector and manipulator, and his preparations were excellent. One injected preparation was of a large mastiff, in which all the principal arteries, with exception of the aorta, had been successfully ligatured, without destroying the animal's

life, and which it is believed was the first instance of the internal iliac artery being successfully tied.

By nature he was kind, social, genial, liberal, hospitable, and universally and deservedly popular. He was one of the promoters of the Natural History Museum, and of the Botanical Gardens.

His strong common sense, sagacity, quickness of perception, combined with varied experience, placed him in the highest rank in the general practice of his profession; while as a skilful operator he is admitted to have been equalled by few.

In 1808 Ainsworth was living in King Street.

In 1847 he resigned his post at the Infirmary, after serving over 40 years.

He died on October 28th, 1853, æt. 70, at his house, Cliff Point, Lower Broughton.

There is a portrait of Ainsworth at the Royal Infirmary, which was painted by George Withington.

Ainsworth was a prominent figure in the social life of the town in the second quarter of last century. Thus he was the official doctor to John Shaw's Club from 1825 to 1848, and was usually present at the meetings which were of a social character, centering round a dinner. Most of the members were old Tories. He was also doctor to

the Scramble Club for part of the same period of time. This latter club was originally started in 1801 by merchants dining together on Tuesdays before going on 'Change, but its meetings were later held in the evening. It is not stated whether the doctor to these clubs had any official duties.

Ainsworth, like Robert Thorpe, with whom he was on terms of affectionate friendship, was a popular figure in the town, and was known generally as Jim Ainsworth. He was first cousin to Harrison Ainsworth, and father to Dr. Ralph Fawcett Ainsworth, Honorary Physician to the Infirmary from 1841 to 1866.

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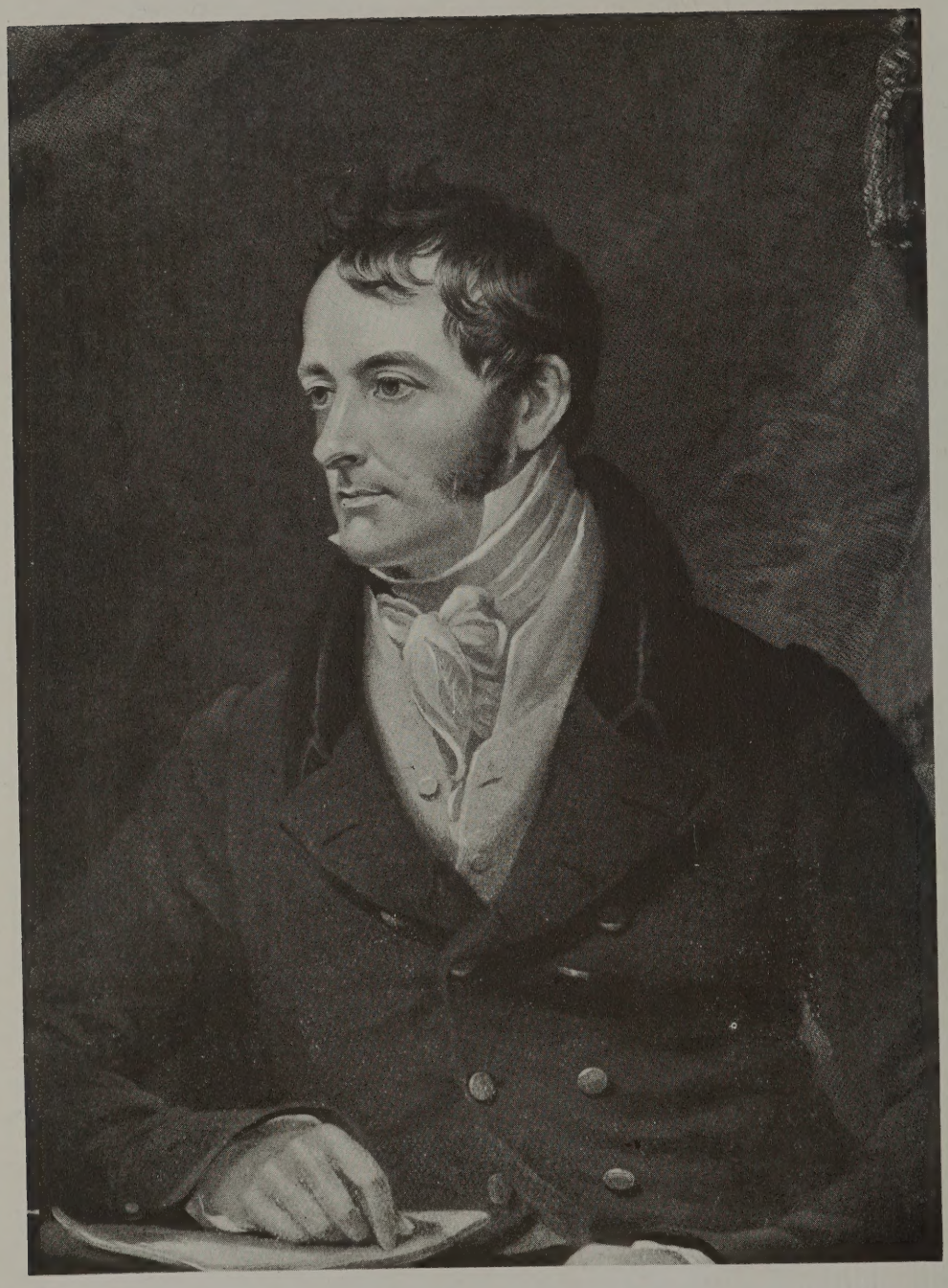

WILLIAM HENRY.

WILLIAM HENRY, M.D., F.R.S.

Honorary Physician to the Infirmary, 1808 to 1817.

WILLIAM, the son of Thomas Henry, was born December 17th, 1774. In early childhood he was injured by the fall of a heavy beam on his right side, which materially checked his growth, and left acute neuralgic pains as a consequence: these pains recurred after long intervals of remission, and with a peculiar severity some months before his death. He bore them with remarkable fortitude, even as a child, when he used often to have to sit down, when out walking, until they passed off. He was educated at the Manchester Academy, and then became secretary to Dr. Percival for five years, attending at the same time at the Infirmary, under Dr. Ferriar's tuition.

In 1775, he went to Edinburgh for a year, studied chemistry under Dr. Black, and medicine under Dr. Gregory, and then returned to Manchester to assist his father in his apothecary work and in his business as chemical manufacturer. The hard

work of an apothecary's practice was too much for Henry's delicate constitution, so in 1805 he returned to Edinburgh, and continued his studies, taking his degree of Doctor in 1807, with a dissertation "de Acido urico et morbis a nimia ejus secretione ortis." In his medical work he was specially interested in diseases of the urinary organs, and analysed various specimens of calculi. He also wrote a paper on diabetes, which was well received by the profession.

In 1799 Henry delivered a course of lectures on chemistry, in Manchester, and published a work on "A general view of the nature and objects of chemistry and of its application to arts and manufactures."

In 1801 he also published his "Epitome of chemistry," and in this and later years gave other courses of lectures, which were illustrated by very expensive apparatus and by interesting experiments.

In 1803 he communicated to the Royal Society an account of his well known experiments on the quantity of gases absorbed by water at different temperatures and under different pressures, etc., and stated the law—known as Henry's law—that "water takes up of gas condensed by one, two or more additional atmospheres, a quantity which ordinarily

compressed would be equal to twice, thrice, etc., the volume absorbed under the common pressure of the atmosphere."

He also at various times communicated seven other papers on gases to the Royal Society, and in 1808 he was elected to the Fellowship of the society, and in the next year received the Copley medal, as a mark of approbation of his various papers.

Coal gas was closely studied by Henry, who was one of the first to analyse it and to work out a satisfactory plan for this purpose. He also suggested the best methods of applying it for practical purposes and of avoiding its many inconveniences.

In 1808 Henry was appointed Physician to the Infirmary, and retained this post until 1817 when he resigned it and other medical work, to devote more time to his chemical investigations and to the management of his father's business.

After he had left the Infirmary, Henry still maintained a deep interest in the advancement of medicine, and when cholera was epidemic in neighbouring countries, he made some experiments and observations on the destructibility of various contagious poisons by degrees of heat inferior to

the boiling point of water. These experiments were carried out with a view to finding some useful process to prevent infection being brought into England, but Henry found nothing of immediate practical value. He himself looked upon his experiments as requiring confirmation, and he embodied all his own facts, and other evidence that he had noted in his reading in a report which was communicated to the British Association in 1834.

Other writings by Henry were of a biographical nature, the lives of Davy, Wollaston, and others being published by him.

He was a vice-president of the Literary and Philosophical Society for twenty-nine years, and a fellow of the Royal Geological Society.

During his life he was looked upon as an abler man than John Dalton, in fact, as the most eminent scientist in Manchester. He certainly was more prominently before the public on account of his wealth and habits of entertaining freely. Henry, however, did not encourage this opinion and insisted on Dalton being made President of the Literary and Philosophical Society in 1816 instead of himself, as many wished.

He married Mary, daughter of Thomas Bayley, of Booth Hall, near Manchester.

Henry died on September 2nd, 1836, and was buried at Cross Street Chapel. There is a bust of him by Chantrey in the rooms of the Literary and Philosophical Society, and a portrait by Lonsdale in the Salford Art Gallery.

Henry had habits of extreme mental accuracy, and his unrivalled manual expertness, and the general tendencies of his tastes towards elegance and precision, peculiarly qualified him to excel in conducting delicate investigations. He had a polished courtesy, an intuitive propriety, and a considerate forethought and respect for the feelings and opinions of others. A reserve of manner noticed occasionally, which might be regarded as implying coldness of feeling by those not already acquainted with him, arose solely out of the languor produced by an almost constant state of bodily indisposition. Though not liable to acute maladies, or to such as seemed to endanger life, Henry had to struggle with a habitual infirmity of health and feelings of oppression arising from the slow and imperfect action of the digestive functions. The neuralgic pains were also periodically a source of weakness, and at times caused him sleepless nights. His conversation was peculiarly attractive and insinuating. Pregnant with

varied and extensive information, he knew how to impart it in the most alluring manner. He was a master of the art of conversation, never overbearing or dogmatical. He occupied a splendid establishment, and was a patron to scientific aspirants who attracted his attention. As an experimenter he was most careful and impartial in his observations, and used to discourage his assistants from calculating the probable results of an experiment with the remark that, by doing so, there would be a danger of coaxing the experiment to make it correspond with the estimate.

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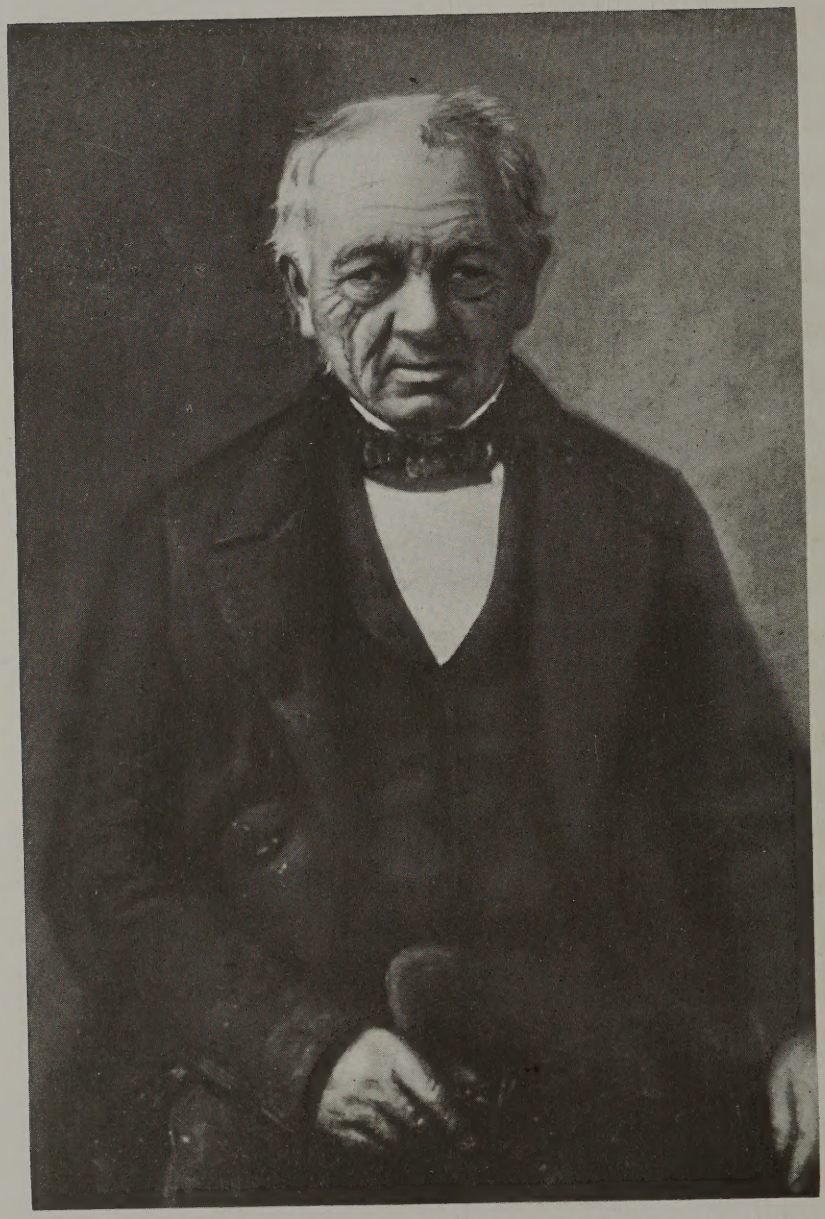

WILLIAM WINSTANLEY.

WILLIAM WINSTANLEY, M.D., J.P.

Honorary Physician to the Infirmary, 1808 to 1817.

WILLIAM WINSTANLEY, the fourth son of William and Alice Winstanley, was born at Cuerden, near Preston, December 6th, 1772. At a later date his parents lived at Woodcock Hall, which came to the mother from her grandfather, Thomas Woodcock.

He was educated at the Grammar School of Walton-le-Dale, at the school of Rev. Wm. Tattersall (afterwards M.D.), at Preston, and then at the Clitheroe Grammar School. In 1790, intending to enter the Presbyterian or Unitarian ministry, he was placed at the Dissenting Academy at Northampton, leaving there in 1793 to study at Manchester College, under the Rev. Dr. Barnes. In 1795 he finished his student career, and began to preach, being for a short time minister of the Presbyterian Chapel at Tunley, in Lancashire, which was several miles distant from Woodcock Hall. From 1798 to 1803 he was minister to the Unitarian congregation at Derby. Although his success as a minister was considerable, Winstanley decided to enter the medical profession, for which, from very early life, he had

entertained a preference, and in 1804 he entered as a student of medicine at Edinburgh. In 1806 he took his degree of Doctor, the title of his thesis being "de Hysteria." When thus fully qualified, Winstanley settled in practice in Manchester, and was elected as Honorary Physician to the Infirmary in November, 1808. In this same year he married Elizabeth, the eldest daughter of Samuel Hardman, a merchant.

Whilst physician to the Infirmary he gave evidence before a Parliamentary Committee on the pernicious effects of the excessive hours of labour upon the health of young children employed in cotton factories. Winstanley was always a prominent supporter of all the benevolent movements of the town. Whilst resident in Manchester he attended the Cross Street Chapel, a congregation of which several of the Infirmary physicians, Kay, Percival, the Henrys, and Holme, had also been members.

In February, 1817, he resigned his post at the Infirmary, and left the town shortly afterwards for the benefit of the health of his family.

From 1819 he lived at Woolton Lodge, near Liverpool; and in 1834 he was placed on the Commission of the Peace for the County of Lancaster.

After his wife's death in 1845 Winstanley moved to Chaigeley, thirteen miles from Preston. Though well advanced in years he had enjoyed good and active health, but towards 1850 he began to fail, and surgical treatment being necessary for his ailment he went to London in 1857, to consult the most eminent men. He died on May 15th of the same year, aged 79, not having survived the operation which was performed to relieve his symptoms.

He was buried in Brompton Cemetery. An obituary notice which appeared in the Preston Guardian, May 22nd, 1852, may be quoted as giving an excellent account of the very interesting personality of Dr. Winstanley :—

"We have elsewhere recorded the death of Dr. Winstanley, and we beg here to testify the general feeling of deep regret which has been excited by it, in addition to the grief of the private circle on which it has been an irreparable loss.

"In this gentleman the qualities of a superior understanding and benevolent heart, unobtrusively manifested in all the relations of life, commanded deep respect, and greatly contributed to the happiness of many within the sphere of his influence. It is rarely that personal character makes and leaves so

deep an impression of its worth as in this instance, and never more justly; for the virtues of the character in him, the fruit of sound mental and moral culture, were sustained by enlightened judgments and steady principles, no less than by dispositions naturally amiable.

"Dr. Winstanley, we believe, early relinquished professional practice for the retirement of private life. For many years previous to his death he was on the Commission of the Peace for this county. He was assiduous in his attention to his duties as a magistrate, both on the bench and in matters of public business (though never assuming a prominent position) acting with the intelligence and conscientiousness which invariably characterised him. Everything tending to the public good, or to the improvement of society, had in him a sincere friend and steady supporter. To everything of this nature his time and attention, his personal countenance and liberal assistance were most cheerfully given. In him the weight of station and character were seen uniformly to bear in aid of whatever is favourable to the interests of human happiness.

"In private life and in the intercourses of society how much Dr. Winstanley was endeared to those

who knew him, by his amiable manners, his equal and cheerful temper, and his thoughtful kindness for others, it is not easy to say. Of what he was in every domestic relation, and in every nearer and relative connection, we forbear to speak, as a subject too sacred for mention in this place, and on which all eulogy were inadequate. Educated in the school of liberal nonconformity, on conviction Dr. Winstanley retained through life the principles of his education. In religious sentiment he was a Unitarian. His profession was supported with the consistency which has its source in rectitude of principle; and it was accompanied and adorned by the most perfect benignity and liberality of feeling towards good men of all sects and all parties."

Dr. John Hull, of the Lying-in Hospital, was brother-in-law to Dr. Winstanley, having married his sister. Dr. Hull's eldest son, William Winstanley Hull, was well known as a writer on ecclesiastical law.

There is a portrait in oils of Dr. Winstanley in the possession of his grandson, W. A. Winstanley, Esq., who has kindly given me permission to reproduce it for this book.

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JOHN MITCHELL, M.D.

Honorary Physician to the Infirmary, 1809 to 1841.

VERY little information concerning Dr. John Mitchell, beyond the fact that he was Honorary Physician to the Infirmary from 1809 to 1841, has been found. He used to live at 68, Piccadilly, but during the last few years of his life he was at 4, Arthur's Terrace, Bury New Road, where he died on November 27th, 1846.

He is not to be confused with another and more celebrated Dr. John Mitchell, who died in 1824, and who wrote "A new exposition of the Revelation of the Apostle John," and "A letter on the Trinity." As far as I can tell the two men were not related.

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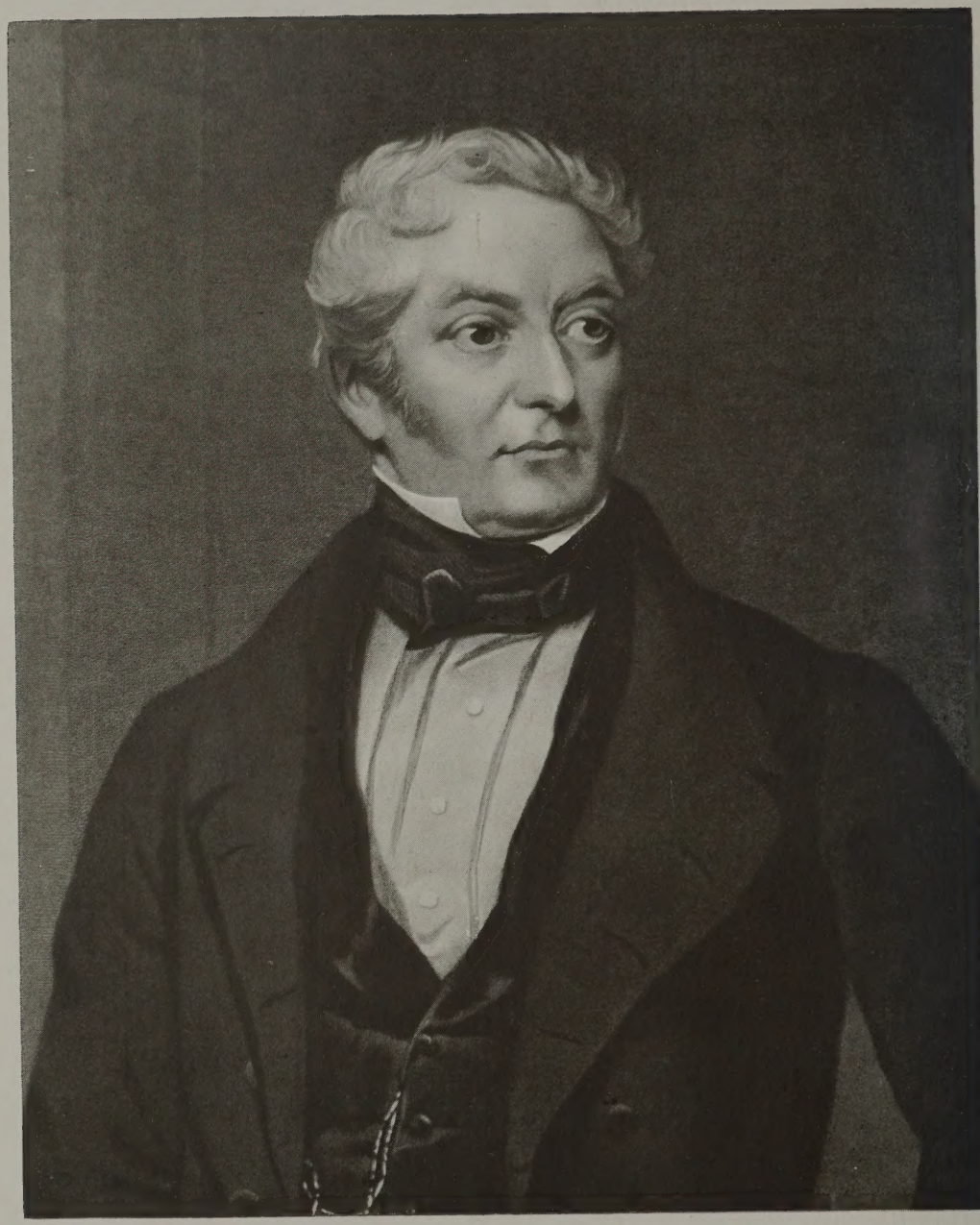

ROBERT THORPE.

ROBERT THORPE, M.R.C.S.

Honorary Surgeon to the Infirmary, 1812 to 1849.

ROBERT THORPE was the son of John Thorpe, Surgeon to the Infirmary. He was educated at the Manchester Grammar School, and apprenticed to his father. He also studied for his profession in London.

In 1809 he was admitted a Member of the Royal College of Surgeons, and in 1812 he was appointed Surgeon to the Infirmary.

On February 19th, 1849, he resigned his position at the Infirmary, and was appointed Consulting Surgeon.

Thorpe died at Piccadilly, June 21st, 1851, aged 63, and was buried at Blackley.

We are told that Thorpe was intimately acquainted with the minutest details of anatomy, and possessed of a ready and most accurate perception of the condition of a diseased part.

"His iron nerve and steadiness of manipulation were never exceeded. His decision, strength of nerve, and a certainty of eye and hand, rendered him a

most successful surgeon, and spread his fame even to London. He had a good reputation amongst his fellow-practitioners in Manchester. He was a benevolent and unostentatious man, and a fine specimen of the medical fraternity, sparing in speech, being little gifted with rhetoric, and rather brusque in manner. His merit was sterling, his acquirements solid, his knowledge exact, and his professional treatment sound and judicious. The confidence that was once placed in him was never shaken. He did not make a large fortune though he had plenty of opportunities of doing so." It is said that he was known not only in Manchester but throughout the kingdom as one of the cleverest anatomists and operating surgeons, which the three kingdoms contained.

"His word on surgical matters had almost the authority of law among his professional brethren of Manchester, and his opinion of a case was looked for with deference. A fact we have heard illustrates this in a striking manner. At the Infirmary, when an operation appears to be necessary, it becomes a matter for consultation among the medical staff before it is undertaken, and the decision depends upon the majority of votes recorded, commencing with the youngest member, and ending with the senior.

Mr. Thorpe could not always attend these consultations, and it has happened that a patient about whose case he had not been in consultation, when arranged on the operating table, has been removed because Mr. Thorpe, after examination, expressed his opinion that it would be better to wait a short time. Such a fact is perhaps the strongest proof we can cite of the deference paid to his skill by his colleagues.

"In private life no one enjoyed with more geniality the company of his friends.

"It is gratifying to look back at such contemporaries as James Ainsworth and Robert Thorpe, natives of the same city, educated at the same school, attached so long to the same noble institution, and pursuing in friendly association the same honourable and unblemished career. If the 'medical ethics' of one who may be styled the father of the science in Manchester, needed any illustration from individual reference, it might be supplied from the practice of these two able and excellent men; and if in that practice they failed to acquire the large fortunes which others have succeeded, with no greater opportunities, in amassing, they at all events left behind them names to which the shadow of reproach

or imputation of greed has never been attached, and examples, which all who follow them in cultivating the healing science which they understood so well, may be proud to emulate."

Thorpe lived for part of his life in King Street, on a site now occupied by the Prudential Assurance buildings. A story is told by Mr. Aston, which he received from an Oldham medical friend, about Thorpe. He was sent for to go to Oldham to make a third in consultation on a young gentleman. After the surgeons had had dinner and two or three glasses of wine, they set out to see the patient, and on the way the Oldham doctor said, "Now, Mr. Thorpe, the house we are going to are very religious people, and they and their relatives are the very best connection I have, so whatever you do, mind you do not swear,"—which he was in the habit of doing, like very many other of the gentlemen in those days. "Oh, don't you fear, I will mind what I am about." When they reached the house, they were told by the servant who let them in that the young man was dying, and the other doctor and all the family were upstairs.

"When they got into the sick room, they found all the family round the bed. Robert Thorpe, as the

last party called in, felt the pulse and the beating of the heart, and asked a few questions, then put his hands behind his back, and looking at the patient said, 'Well, young man, if I was lying where you are, and saw all these folks crying round my bed, and three doctors in the room, I should think I was in a d——d bad way; but pluck up your heart, you'll get better;' and he did, and was not long about it either. When they got outside the house my friend said, 'Oh, Thorpe, you rapped out with an oath.' 'Nay, I'm d——d if I did, for I was on my P's and Q's all the time I was in the house.'"

Thorpe was evidently a 'persona grata' with the townspeople, and was known generally as "Bob Thorpe."

There is a portrait in oils of Thorpe at the Infirmary by Wilkins. It was engraved by Reynolds.

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HENRY HARDIE, M.D.

Honorary Physician to the Infirmary, 1816 to 1826.

HENRY HARDIE was a graduate of Edinburgh, having obtained his degree as Doctor with a dissertation entitled "de Diarrhœa," in 1809.

Beyond the facts that he was appointed as Honorary Physician to the Infirmary in 1816, and died on October 6th, 1826, I have no information.

Readers of the "Manchester Man," by Mrs. Linnæus Banks, may, however, remember that Dr. Hardie's name appears in connection with a few incidents of the story. He attended Mr. Chadwick, and bled him when he had a stroke on hearing of the death of his son at Waterloo; and he also treated some of those injured in the Peterloo incident. It was also Dr. Hardie who diagnosed the cause of Ellen Chadwick's continued ill health, and successfully treated her heart complaint by prescribing Jabez Clegg. Dr. Hull, and Mr. John Windsor are also medical men who figure in the pages of this interesting account of Manchester in the early part of the nineteenth century.

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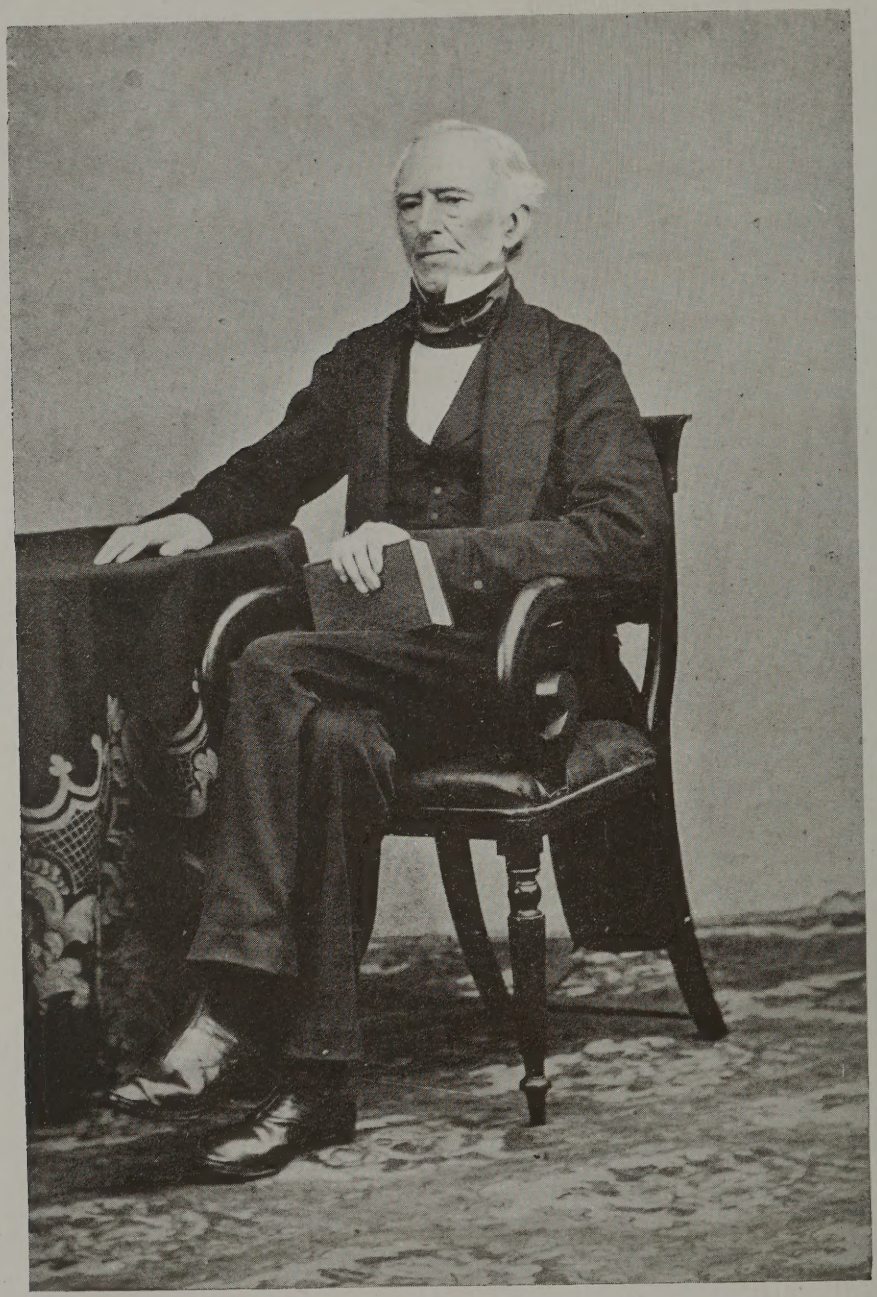

EDMUND LYON.

EDMUND LYON, M.D., M.R.C.S.

Honorary Physician to the Infirmary, 1817 to 1841.

Consulting Physician, 1841 to 1862.

EDMUND, son of the Rev. James Lyon, Rector of Prestwich, was born at Prestwich in 1790.

He received his preliminary education at Oswestry, and then became a pupil of Mr. Benjamin Hutchinson, of Southwell, the author of "Biographica Medica," the best medical biography of its time. He also attended lectures at Edinburgh and London, obtaining his degree of Doctor at the university of the former city, with a dissertation "de Asthmate," in 1815. He also became a Member of the Royal College of Surgeons in London, and settled in practice in Manchester.

In 1817, on the retirement of Dr. William Henry, Lyon was appointed Honorary Physician to the Infirmary, a post which he held until 1841, when he retired.

No hospital had a more diligent and conscientious physician than the Infirmary possessed in Dr. Lyon.

But notwithstanding his excellent education, and his being a gentleman of good birth, of powerful connections, of much sagacity, industry, and professional knowledge, and of exemplary private life, his professional success was exceedingly slow.

It was not until he retired from the Infirmary, after twenty-four years on the staff, that he obtained a moderate income. The reasons for this slow progress were that Hull, Holme, and S. A. Bardsley were all then in the prime of life, with large practices, and the general practitioners being more highly educated than formerly, began to take up a great deal of the work previously done by the physicians, and also to increase in number in the town. About this same time more scientific methods of diagnosis, including the use of the stethoscope and the microscope, began to be adopted, and although Lyon tried to keep up with the progress of knowledge, and perhaps acquired as much experience in auscultation as many of his colleagues, he used with characteristic honesty and conscientiousness to say "I cannot always trust my ear." Such honest declarations were liable to be put down to wrong motives, and would probably not tend to increase his practice. After retiring from the acting staff of the

Infirmary in 1841, he was appointed Consulting Physician, and continued to practise until 1851, when he gave up medical work, and devoted his time to public institutions. He became a member of the Board of Management of the Infirmary, and took an active interest in Henshaw's Blind Asylum and in the Royal Institution, being president of the latter institution at his death.

He died on December 17th, 1862, and was buried at St. George's Church, Hulme.

A pen picture of Dr. Lyon in his later years is interesting:—"A slight figure, snow-white hair, an exquisitely shaped head, dark eyes, and a disciplined mouth; a countenance singularly pure in its expression, calm, grave, thoughtful and resolute, betokening an intellect which had been highly disciplined, a soul alive to its duties, and a conscience which, through all the struggles and toils of a long life, was of child-like purity."

Dr. Lyon published two papers in the short-lived North of England Medical and Surgical Journal, 1830. "One was a Sketch of the medical topography and statistics of Manchester," . . . and gave an account of the geology, population of the town, and

of the Infirmary, and other establishments for the relief of the poor.

The other paper is on "Observations on ileus."

He was much interested in, and helped greatly with the foundation of the Medical Society here, and there are in the society's library some manuscript notes by Dr. Lyon on subjects of medical interest.

In the opinion of his colleagues on the Medical Committee of the Infirmary, Dr. Lyon was characterised by gentleness, humility, and benevolence, by a steady and conscientious discharge of every duty, and by the stern and unbending integrity of purpose that pervades all the actions of an upright man.

The accompanying portrait is taken from a small carte de visite photograph in the possession of George Lyon, Esq., nephew of Dr. Lyon.

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THE INFIRMARY, 1826—1847.

EDWARD CARBUTT, M.D.

Honorary Physician to the Infirmary, 1817 to 1836.

CARBUTT received his medical education at Edinburgh, taking his degree of Doctor with a thesis, "de Systematis nervosi physiologia," in 1814.

Where he came from is not evident, but he settled in Manchester, and from 1816 to 1818 was librarian to the Literary and Philosophical Society, reading one paper before it on the "Signs of Ideas."

In 1817 he was appointed Honorary Physician to the Infirmary, and retained this post until his death in 1836.

The outstanding fact concerning his connection with the hospital is that he was the first to deliver a systematic course of clinical lectures to its students. How he came to deliver the clinical lectures is best told in his own words taken from the "Notice" or preface to the book in which he published the series of lectures in 1834:—

"In Manchester, schools of anatomy, physiology, medicine, and surgery have long been established. The celebrated Charles White, Mr. Gibson, Dr. Roget, and Messieurs Ransome and Ainsworth, gave regular annual public courses of lectures upon anatomy,

physiology, and surgery, and they are the true founders of anatomical, surgical, and medical schools in this town. At present Manchester possesses three regular anatomical schools, at two of which medicine and materia medica, midwifery, surgery, chemistry, medical jurisprudence, and botany are regularly taught.

"But still there was wanting something to crown all this—clinical lectures at the Royal Infirmary. Application on the subject was made to the Weekly Board. After some consideration, permission was granted for clinical lectures in the operating theatre, and in consequence of this permission, I readily acceded to the wish of my colleagues that I would undertake the first course of medical clinical lectures."

These lectures were delivered from June to December, in 1833. Who delivered the surgical series is not evident.

Carbutt was, undoubtedly, an able man, and he associated on intimate terms with John Dalton, Peter Clare, and others of a philosophical turn of mind, but his cleverness was discounted by his eccentricity and sarcastic nature, and he met with little success in his practice.

The best account of him that I have been able

to find is that left by Mr. Absalom Watkin in the pages of a diary which was printed for private circulation by his son, the late Sir Edward Watkin, and kindly lent to me by Mr. Alfred Watkin.

Carbutt was a member of a small literary and scientific club, which met every Saturday evening, for the mutual improvement of its members. The meetings were private and no proceedings were published. Carbutt delivered lectures on physiology and pathology before the club in 1819 and 1820, but in the summer of the latter year he had a difference with one of the members and discontinued his connection with the club, to the regret of all those who had had the pleasure of attending his lectures.

In Mr. Watkin's opinion he was a man of considerable intellectual power, with industrious habits, and a desire to distinguish himself, yet he entirely failed to make for himself that position in life which such ability and characteristics ought to ensure for a man possessed of them.

At the time he was elected to the Infirmary staff he had an intense desire to render everything that he did as perfect as possible; but, unfortunately, a very contemptuous opinion of the performances and conduct of others, which he was not only at no

great pains to conceal, but which he also expressed in such an unpleasant way, offended the good taste of his audience, and created in them a feeling of distrust of himself.

One point on which he was very particular was the correctness of his literary style in his writings or lectures, and to attain this he would ask for, and receive with pleasure, the criticisms of the members of the club on the construction of a sentence, not only on its grammatical accuracy, but also on the choice of words, adopting those which seemed to him to improve what he had written himself. He also endeavoured to arrange his matter in a clear and comprehensive way, and always confined his remarks to facts within his knowledge. His lectures were, at times, eloquent in diction, and the more pleasing by being delivered in a graceful manner, hardly natural, but which he was at pains to cultivate. The period at which he attended the meetings of the club was the high-water mark of his success in life at that time, as he was respected for his ability, and not feared for his tongue; and so pleased were his fellow-members with his second course of lectures, that they presented him, at the close of them, with a gold snuff-box, containing 50

guineas. But he was not a man to retain friendships; he alienated those who would have respected him for his abilities by his sarcasm and levity; he shifted from party to party, from whigs and sceptics to the tories and orthodox, and thence again to radicals and Cobbettites. No one would trust him or desire his friendship, and the want of success and the friendless isolation which consequently were his, depressed him, and brought on ill health, which gradually increased, until he had a stroke and died in 1836. Mr. Watkin thought that much of his sourness of temper was due to adverse circumstances, and uncongenial surroundings in his childhood and youth.

Carbutt contributed a few papers to medical literature, though none were of much importance, except his book of clinical lectures. The subject matter of the lectures shews him to have been a careful observer; but they contain nothing to indicate more than average ability.

He is said to have written contributions under the pseudonym of the "Doctor," to the Manchester Iris, a short-lived magazine, which was published about 1823. He is probably "The Doctor" who is frequently mentioned in the series of essays published

in the Iris under the title of "The Club," and afterwards re-published under that title in 1825. From these essays we get a few glimpses of Carbutt's personality, which confirm what others noticed—a fondness for botany, a knowledge of the classics, combativeness, pertinacity, hastiness in argument, and low spirits, but withal commanding respect and deference. The Club essays were written by members of Mr. Watkin's little Society. Carbutt is said also to have written some humorous poetical skits in the "Courier," called "Familiar epistles," in 1830.

Nine letters on the currency question, by Verax, which appeared in the Manchester Courier and the Manchester Gazette, in 1829, and which were reprinted in pamphlet form, were written by Carbutt. The reprint is dedicated to the Right Hon. Robert Peel, as the "most considerable man in the Kingdom." The "Epistle dedicatory" is signed: "Your prostrate and all-but-idolatrous admirer, Verax."

Carbutt died on the 25th of February, 1836, and was buried at the Friends' Meeting House, Mount Street.

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JAMES LOMAX BARDSLEY.

SIR JAMES LOMAX BARDSLEY, M.D., F.R.C.P.

Honorary Physician to the Infirmary, 1823 to 1843.

JAMES LOMAX BARDSLEY was born at Nottingham, on July 7th, 1801. He was nephew to Dr. Samuel Argent Bardsley.

He received his medical education at Glasgow, Edinburgh, and at St. Bartholomew's Hospital, London, where he came specially under the tuition of Dr. Abernethy, with whom he formed a lasting friendship. He also spent a year in the medical schools and hospitals of Paris, studying under Laennec, Dupuytren, Cuvier, and other well-known teachers.

In 1823 he obtained his degree of Doctor at Edinburgh, the title of his thesis being "de Rabie canina."

This same year he was elected to the post of Honorary Physician rendered vacant at the Infirmary by the resignation of his uncle. Bardsley was then only twenty-two years old, and was the youngest

man ever appointed on the honorary staff of the hospital.

In 1825 he was lecturing at the Pine Street School of Medicine and Surgery on the principles and practice of physic, materia medica, and medical botany, and he continued to deliver these lectures until 1843.

Bardsley's "Hospital facts and observations" was published in 1830. The full title page explains the nature of the work, "Hospital facts and observations, illustrative of the efficacy of the new remedies, strychnia, brucia, acetate of morphia, veratria, iodine, etc., in several morbid conditions of the system; with a comparative view of the treatment of chorea, and some cases of diabetes, and a report on the efficacy of sulphureous fumigations in diseases of the skin, chronic rheumatism, etc."

The various papers are written in an interesting manner, and shew a true scientific capacity for original observation.

In 1831 Bardsley married Elizabeth, relict of the late R. H. Shuttleworth, and he was elected to the Fellowship of the Royal College of Physicians in the same year.

In 1833 he contributed articles on hydrophobia and diabetes to the Cyclopædia of Practical Medicine.

Bardsley was much interested in the formation of the Provincial Medical and Surgical Association, which took place in the year 1832. He delivered the Retrospective Address at the fifth anniversary of the Association in 1837, at Cheltenham.

The introductory address delivered by Bardsley, at the commencement of the tenth session of the Manchester School of Medicine and Surgery, Pine Street, 1835, gives a very interesting account of the objects and advantages of the system of medical instruction pursued at the school. Dr. Bardsley also pointed out the importance of clinical teaching to students, and that it bears the same relationship to medicine as dissection to anatomy—namely, it demonstrates. He also quotes an interesting passage from the life of Cullen on the great value of clinical instruction to the teacher and to the patients as well as to the students; "If there be anything which can induce the rash practitioner to pause, the inconsiderate to reflect, or the ill-informed to seek for instruction, it is the necessity of explaining the grounds of his practice and his opinions of disease to an audience composed of well educated medical students."

Bardsley was the second president of the Manchester Medical Society, holding office for five years, and then after an interval of two years, for another year. He was also president of the Manchester Medico-Ethical Association in 1850.

In 1843 he resigned his position at the Royal Infirmary on account of his heavy professional engagements, and he was appointed Consulting Physician. His consulting rooms in town were in Chatham Street, where his uncle, Dr. S. A. Bardsley, had previously resided.

In 1853 Bardsley was knighted because, we are told, he was well and honourably known in the highest professional and political circles as a distinguished provincial physician. He was also Deputy-Lieutenant for the County, and a Justice of the Peace, but he seldom took part in public affairs. In private life he was greatly esteemed by a large circle of friends. He was one of the kindest of men, always affable and courteous to all with whom he came in contact, and readily accessible to anyone who wished to see him.

He did not possess great intellectual attainments. What distinguished him was good common sense

and sound judgment rather than deep learning. He was essentially a practical man.

Sir James Bardsley had broken health, owing to cardiac disease, in the later years of his life, and gradually reduced the extent of his work, retiring altogether from practice in the last twelve months.

He died on July 10th, 1876, at his house, the Orchards, Greenheys, aged 75.

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JAMES DAVENPORT HULME, M.D.

Honorary Physician to the Infirmary, 1826 to 1848.

JAMES DAVENPORT HULME graduated at Edinburgh in 1798, his dissertation being on diabetes.

He was appointed as Honorary Physician in 1826, and died on March 7th, 1848. The only notice I have found about Dr. Hulme was one recording his death, "Died March 7th, 1848, in Plymouth Grove, aged 74, James Davenport Hulme, M.D., of Ball Haye, in the County of Stafford."

He lived in Mosley Street part of his life, and enjoyed a large practice.

REFERENCE.

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WILLIAM JAMES WILSON.

WILLIAM JAMES WILSON, F.R.C.S.

Honorary Surgeon to the Infirmary, 1826 to 1855.

WILLIAM JAMES WILSON, the son of a solicitor, was born at Leeds. He lost both his parents in early life, and was brought up and educated by the kindness and liberality of his sister.

He was apprenticed at first to Mr. Braithwaite a Quaker surgeon, of Lancaster, who was the original proprietor of a celebrated mixture known as Black Drop. On Mr. Braithwaite's death, Wilson came under the tuition of Mr. Rowland, of Chester, an eminent surgeon of his day. Later he moved to Islington to Mr. Spencer, and he there attended the practice of Clerkenwell Workhouse. He also studied at St. Bartholomew's Hospital, and the Infirmary for Diseases of the Eye, Charterhouse Square, and was dresser at the London Hospital.

When he had completed his studies and taken the Membership of the Royal College of Surgeons in 1813, he commenced to practice in Manchester.

Soon after coming to Manchester, Wilson was mainly instrumental in founding the Manchester

Institution for curing Diseases of the Eye. He wrote a letter pointing out the good work which such a hospital would do, and at a meeting called for the purpose on October 21st, 1814, this was read and the charity founded. He was appointed Surgeon, and he continued his connection with it for twelve years, gaining a great reputation as an oculist. It was to him that Charlotte Brontë brought her her father in 1846 to be operated on for cataract. During this same period of time he was on the staff of the Lying-in Hospital, and to the last was extensively consulted in cases of difficult parturition.

In 1826 he was appointed Honorary Surgeon to the Infirmary, a post he had looked forward to as the summit of his ambition. He was twenty-eight years on the staff of the Infirmary and had a very large surgical practice, especially in lithotrity cases. His opinion was also highly valued in medical cases. In 1843 he was elected an Honorary Fellow of the Royal College of Surgeons.

Wilson was noted for the breadth of view which he took of cases—as might be expected in a man consulting in medical, surgical, ophthalmic, and gynæcological cases, and he was very fertile in expedients for relieving the patients.

He was most generous to his professional brethren in lending them any of his instruments, of which he had an extensive and valuable stock. He was also ever ready to attend the families of medical men.

Wilson was also much consulted by letter, and his opinions, written in a beautiful hand, were remarkable for fulness and perspicuity.

In stature he was of middle size—well formed, easy and graceful in all his movements. The countenance which was not particularly striking in repose, his features being rather small, was whenever he conversed, lighted up with intelligence and the most agreeable courtesy of expression, occasionally blended with rich humour, to which he had a natural propensity. This lent charm to his anecdotes, of which he had a large and original store.

Wilson was one of the most eminent members of the profession in Lancashire, and probably no person in any walk of life was, during forty years, more generally known and esteemed in Manchester and neighbourhood by all classes than he was.

He was President of the Manchester Medical Society from 1843-5, and of the Provincial Medical

and Surgical Association meeting at Manchester, in 1854.

Wilson retired, through failing health, from the Infirmary staff in 1855, and died at Tickwood, near Wellington, on July 19th of the same year.

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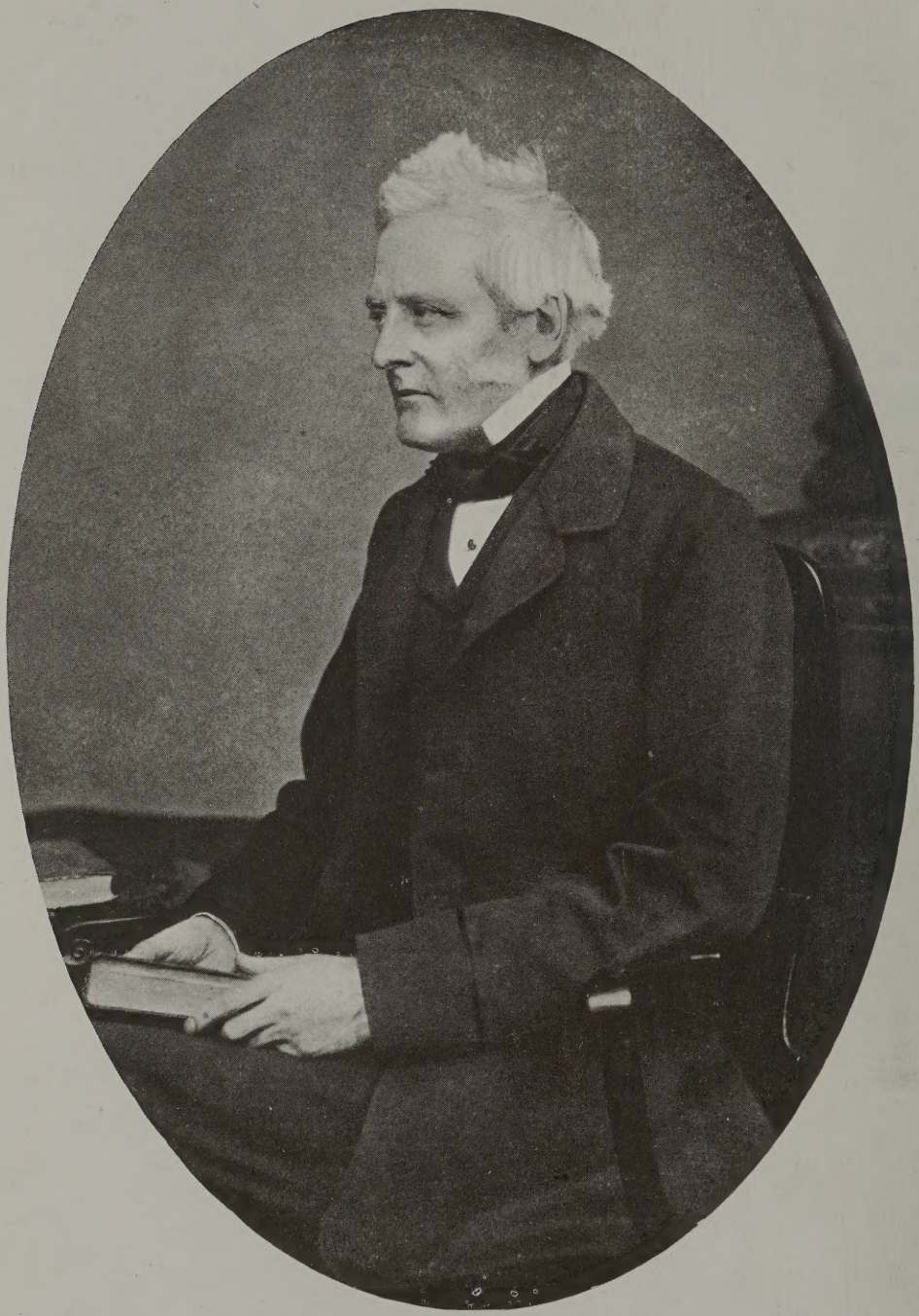

WILLIAM CHARLES HENRY.

WILLIAM CHARLES HENRY, M.D., F.R.S.

Honorary Physician to the Infirmary, 1828 to 1835.

WILLIAM CHARLES, the son of William Henry, was born at Manchester, on March 31st, 1804. He was educated at the Unitarian College in the town, and for six years studied chemistry and natural philosophy under John Dalton. In 1824 he went to Edinburgh for his medical studies, obtaining his degree there in 1827, with a thesis entitled "de Tuberculorum origine."

He also spent some time in Paris, continuing his medical work at the hospitals, and attending lectures by various professors.

In 1827 he was appointed as Physician to the Infirmary, and a couple of years later began lecturing at the Pine Street School of Medicine on physiology.

Henry resigned his post at the Infirmary in 1835, and went abroad, spending a year at Berlin, where he worked at chemical analysis. He also afterwards studied chemistry at Giessen, under Liebig.

In 1834 he was elected Fellow of the Royal Society, and thus created a unique record of this

honour being held by a member of three consecutive generations of one family. From 1775 to 1892 one or other of the three Henrys—father, son, or grandson,—was a Fellow of the society.

In chemistry Henry was especially interested in analysis of magnesia and in the preparation of mineral waters, in which business he had an interest.

In addition to some papers on physiology, Henry wrote memorial notices of his father—William Henry, Mr. Peter Ewart, and of the Very Rev. Richard Dawes, Dean of Hereford. He also wrote a life of John Dalton, which was published by the Cavendish Society in 1854.

He married in 1837 Margaret, daughter of Thomas Allan, F.R.S., of Lameston, Edinburgh, a distinguished mineralogist.

At the latter end of his life he lived at Haffield, Ledbury, in Herefordshire, and died there on January 7th, 1892, aged 88 years.

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THOMAS TURNER.

THOMAS TURNER, L.S.A., F.R.C.S.

Honorary Surgeon to the Infirmary, 1830 to 1855.

THOMAS TURNER, the youngest son of Mr. Edmund Turner, a banker of Truro, was born on August 18th, 1793. He was educated at a private school and then at the Truro Grammar School. His father wished him to enter the church, but Turner was too strongly attracted to the medical profession, and so he was apprenticed to Mr. Nehemiah Duck, one of the surgeons of St. Peter's Hospital, Bristol.

In 1815 Turner went to London and entered as a student at Guy's and St. Thomas's Hospitals, under Mr., afterwards Sir, Astley Cooper.

He became a Member of the Royal College of Surgeons and a Licentiate of the Apothecaries' Hall in 1816, proceeding afterwards for a year to the Paris schools, where Dupuytren and Portal, amongst others, were then teaching.

In 1817 he came to Manchester where his youngest sister was living, and was appointed House Surgeon to the Infirmary in the same year, holding the

appointment until 1820, when he resigned it. Turner's name was evidently omitted from the printed reports of the hospital, as he is not mentioned in any of them for these years as being a house surgeon.

Turner, after setting up in practice, soon began to take an active part in teaching, and delivered his first course of lectures, in the rooms of the Literary and Philosophical Society, to the general public in 1822, his subject being "The anatomy, physiology, and pathology of the human body," which he treated in a more or less popular way. In all he delivered seventy lectures in this winter, and he illustrated them by specimens from the museums of Mr. Ransome and Mr. Ainsworth. After the course he was presented with a gold vase by those who had attended the lectures. In later years he gave similar courses.

In 1823 Turner contributed some papers on "Poisons and suspended animation" to the pages of the Manchester Iris, a short-lived journal, devoted to the provision of general information.

In 1824 he delivered an address before a large audience, in which he proposed to establish a school of medicine and surgery. This address is full of most enlightened and advanced views as to the

training of students in Manchester, both in the preliminary scientific work and in the ordinary medical subjects. As his project was well received, Turner took a house in Pine Street in October of the same year, and began lecturing to medical students on anatomy, physiology, and pathology, John Dalton joining him, and taking pharmaceutical chemistry as his subject. The school met a want, and was so successful that it was greatly extended and elaborated, the leading physicians and surgeons joining in the scheme, and lecturing on various other subjects.

In 1825 the staff of the school and the subjects taught were as follows:—

Dr. (afterwards Sir) J. L. Bardsley, The principles and practice of materia medica.

Mr. John Atkinson Ransome, Surgery.

Mr. Kinder Wood, Midwifery.

Mr. Turner, The anatomy, physiology, and pathology of the human body.

Mr. John Dalton, Chemistry.

Mr. Thomson, Botany.

Mr. Turner, Demonstrations in anatomy.

In 1833 medical jurisprudence was taught by Mr. Ollier, and The anatomy, physiology, and pathology of the eye, by Mr. Hunt.

A great feature about the school was the teaching of practical anatomy by dissection, but Turner was not the first to teach medical students dissection in Manchester, Mr. Joseph Jordan having taught it as early as 1814. Jordan had his premises in Back Queen Street, a small street off Deansgate, where he began with about four students. However, the teaching of dissection was a great feature in Turner's school, and this essential factor in a medical student's education was well provided for. The school obtained a high reputation, and in 1828 the Royal College of Surgeons was forced to recognise it, and accept certificates from candidates for their membership of having attended anatomical lectures there, instead of requiring them to study anatomy at a London school. It was not, however, until 1834 that the clinical teaching at the Royal Infirmary was similarly recognised.

I need not go into the history of the various rival medical schools in Manchester, and of the final amalgamation of the Pine Street school with the Owens College. Suffice it to say that when this was ultimately brought about, Turner delivered the inaugural address on the opening of the medical school at Owens College, in 1872—a tribute of honour

and respect which was well earned by the great amount of labour which he had devoted to the establishment of medical education on a proper basis in Manchester.

In 1826 Turner married Annie, daughter of James Clarke, Esq., of Medham, Isle of Wight.

In 1830 he was appointed Surgeon to the Infirmary, and occupied this position until 1855, when he resigned.

Turner took an active interest in various other public institutions. In 1852, with Canon Richson, he was instrumental in founding the Manchester and Salford Sanitary Association, and was president of it from 1858 until his death. He also was much interested in the Deaf and Dumb Schools, to which he was Surgeon for many years.

In 1843 he obtained his Fellowship of the Royal College of Surgeons, and in 1865 was elected to the Council.

Turner was evidently a very able speaker, and he was much sought after as a lecturer on sanitary and semi-medical subjects. He delivered in the course of his life innumerable lectures to medical students and to the public—probably far more than

any other medical man in the town has ever done. It was work that he enjoyed immensely.

The figure of Turner, wearing blue spectacles and sitting in a carriage drawn by a pair of portly horses must still be a memory to many Manchester people.

He died on December 17th, 1873, aged 80, and was buried at Marton, near Skipton-in-Craven.

A very full account of his life was published in 1875, with the title of "Memoir of Thomas Turner, Esq., F.R.C.S., F.L.S.—by a Relative," and from this most of the above information is taken.

APPENDIX A.

HONORARY PHYSICIANS OF THE MANCHESTER INFIRMARY.

PHYSICIANS.	ELECTED.	RETIRED.
Peter Mainwaring.....	June, 1752	June, 1782
Samuel Kay	June, 1752	June, 1782
James Walker	June, 1752	7th June, 1758
Philip Brown.....	22nd June, 1758	17th June, 1779
Thomas Percival	June, 1779	Nov. or Dec., 1780
John Wright	21st December, 1780	16th May, 1782
John Cowling	20th June, 1782	October, 1790
Alexander Eason	20th June, 1782	October, 1790
George Bell	20th June, 1782	April, 1784
Edwood Chorley	4th March, 1784	December, 1784
John Latham	22nd December, 1784	7th September, 1786
Thomas White	7th September, 1786	October, 1790
John Ferriar	23rd September, 1790	4th November, 1815
George Bew	23rd September, 1790	25th September, 1794
Robert Darbey.....	23rd September, 1790	23rd December, 1795
Peter Le Sassier	23rd September, 1790	5th January, 1795
Joshua Parr	4th November, 1790	21st June, 1792
Saml. Argent Bardsley	4th September, 1790	23rd August, 1823
Edward Holme.....	24th March, 1794	17th April, 1828
Alexander Bertram ...	25th September, 1794	29th December, 1794
Samuel Cave.....	22nd June, 1797	18th December, 1797
James Jackson	25th September, 1800	19th June, 1805
Peter Mark Roget ...	18th June, 1805	3rd November, 1808
John Underhill.....	19th June, 1806	Jan. or Feb., 1809
Henry Dewar	20th December, 1804	24th March, 1808
William Henry	24th March, 1808	February, 1817
William Winstanley ...	3rd November, 1808	31st July, 1817
John Mitchell	9th February, 1809	April, 1841
Henry Hardie	23rd March, 1816	6th October, 1826
Edmund Lyon	27th February, 1817	19th April, 1841
Edward Carbutt	31st August, 1817	25th February, 1836
James Lomax Bardsley	28th August, 1823	1843
J. Davenport Hulme...	9th November, 1826	19th April, 1848
William Chas. Henry..	17th April, 1828	1835

HONORARY SURGEONS OF THE MANCHESTER INFIRMARY.

SURGEONS.	ELECTED.	RETIRED.
Charles White	June, 1752	October, 1790
James Burchall.....	June, 1752	14th January, 1779
Edward Hall.....	June, 1752	October, 1790
Richard Hall.....	14th January, 1779	October, 1790
William Simmons.....	23rd September, 1790	June, 1830
John Bill	23rd September, 1790	27th September, 1804
Alexander Taylor.....	23rd September, 1790	27th September, 1804
Robt. Wagstaffe Killer	23rd September, 1790	20th December, 1804
Michael Ward	23rd September, 1790	20th December, 1804
Gavin Hamilton	23rd September, 1790	19th April, 1827
John Wm. Norris.....	20th December, 1804	28th January, 1805
Benjamin Gibson.....	20th December, 1804	February, 1812
John Thorpe.....	20th December, 1804	1833
J. Atkinson Ransome..	20th March, 1806	10th February, 1837
James Ainsworth	18th December, 1806	June, 1847
Robert Thorpe.....	2nd April, 1812	19th February, 1849
William James Wilson	19th April, 1827	1855
Thomas Turner.....	5th August, 1830	1855

APPENDIX B.

SENIOR MEDICAL RESIDENTS OF THE MANCHESTER INFIRMARY.

Date of Report.	Title of Resident.	Occupant of Post.
	NON-RESIDENT.	
1752-3	Apothecary	Mr. James Birch
1756-7	Apothecary and Secretary	,, ,, ,,
	RESIDENT.	
1757-8	Apothecary and Secretary	,, Nathaniel Poole, Jun.
1761-2	Apothecary	,, ,, ,, ,,
1763-4	,,	,, Thomas Walton
1765-6	,,	,, Robt. Darbey
1767-8	Apothecary and Secretary	,, ,, ,,
1777-8	Apothecary and House Surgeon	,, ,, ,,
1781-9	,, ,, ,, ,,	,, ,, ,,
1788-9	Apothecary and House Surgeon	,, Wm. Wood
1791-2	,, ,, ,, ,,	,, J. E. Killer
1795-6	,, ,, ,, ,,	,, Richard Willoughby
1797-8	,, ,, ,, ,,	,, John Jenkinson
1800-1	,, ,, ,, ,,	,, John Hutchinson
1804-6	House Apothecary	,, H. W. Heurtley
	House Surgeon	,, John Sheppard
	,, ,,	,, Godfrey Fox, Jun.
1808-9	,, ,,	,, Robt. Lyall
1809-10	,, ,,	,, J. Heseltine
1810-11	,, ,,	,, John Duncan
1811-2	,, ,,	,, Jas. Bertram
1812-5	,, ,,	,, James Sims
1814-5	House Apothecary	,, John Morris, Surgeon
1815-6	House Surgeon	,, Peter Barrow
1817-8	House Apothecary	,, Thomas Bingham
1818-9	,, ,,	,, George Clayton
	House Surgeon	,, Thos. Brownbill
1820-1	,, ,,	,, Geo. Gardom
1821-2	House Surgeon	,, Dodd
1822-3	,, ,,	,, H. T. Worthington, Surgeon
	House Surgeon	,, John Jesse, F.L.S.
1824-5	,, ,,	,, Chas. Greswell
1826-7	,, ,,	,, W. E. Guest
1828-9	House Apothecary	,, W. W. Lloyd, Surgeon
	House Surgeon	,, Robert Guest ,,

ASSISTANT APOTHECARY AND HOUSE SURGEON.

Mr. Charles Cope ... ... 1771—1781
Mr Alexander Young ... ... 1781—1783

JUNIOR HOUSE SURGEON.

Mr. John Boutflower, Jun. ... ... 1816—1817

PHYSICIANS' CLERK FOR THE HOME PATIENTS.

Mr. George Tomlinson... ... ... 1786—1789
„ J. E. Killer ... ... 1789—1791
„ Richard Prescott ... ... 1791—1795
„ Nockold Thompson ... ... 1795—1808
„ Samuel Dean ... ... 1800—1801
„ John Morris ... ... 1808—1815
„ Thomas Cammack ... ... 1810—1814
„ Joseph Griffiths ... ... 1814—1817
„ Thos. Bingham ... ... 1815—1818
„ Wm. Barker, Surgeon ... ... 1817—1820
„ Thos. Fawdington „ ... ... 1818—1820
„ Thos. Ashton „ ... ... 1820—1823
„ Wm. Owen „ ... ... 1820—1826
„ John Malyn „ ... ... 1823—1826
„ Anthony Shepperd ... ... 1825—1828
„ Thos. Nursaw ... ... 1825—1829
„ Jas. Dixon ... ... 1825—1827
„ Joseph Russell ... ... 1827—1828
„ Wm. Suggett ... ... 1828—1830
„ Daniel Lynch, Jun. ... ... 1828—1831
„ Thos. Bellott ... ... 1828—1829
„ Rich. Baron Howard ... ... 1829—1832
„ Fredk. Robt. Spencer ... ... 1830—1831

APPENDIX C.

MATRONS.

Mrs.	Anne Worral	1752—1759
,,	Elizabeth Taylor	1759—1761
,,	Jane Smith	1761—1765
,,	Catherine Fletcher	1765—1791
,,	Ann Dickinson	1791—1797
,,	Alice Willoughby	1797—1807
,,	Charlotte Barber	1807—1814
,,	Sarah Loftus	1814—1829
,,	Martha Leigh	1829—1846

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RICHARD HALL.

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CHARLES WHITE.

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A treatise on the management of pregnant and lying-in women and the means of curing, but more especially of preventing, the principal disorders to which they are liable. Together with some new directions concerning the delivery of the child and placenta in natural birth. London, 1773. Four editions in England, 1773, 1777, 1785, 1791; one each in France, 1774; Germany, 1775; and America, 1793.

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An account of the successful treatment of a locked jaw, and other spasmodic symptoms, supposed to have been occasionad by a wound in the fourth finger of the left hand. Read, 1761, by William Hunter. Vol. 2, 1764, p. 382.

An account of a new method of amputating the leg a little above the ankle joint, with a description of a machine particularly adapted to the stump. Read, 1769, by William Hunter. Vol. 4, 1771, p. 168.

JAMES BURCHALL.

Med. Obs. and Inq. Vol. 3, 1765, p. 106.

An aneurysm in the thigh perfectly cured by the operation and the use of the limb preserved. Read by William Hunter 1765.

THOMAS HENRY.

Experiments and observations on the following subjects:— (1) On the preparation, calcination and medicinal uses of magnesia alba; on the solvent qualities of calcined magnesia; (3) on the variety of the solvent powers of quicklime when used in different quantities; (4) on various absorbants as promoting or retarding putrefaction; (5) on the comparative antiseptic power of vegetable infusions prepared with lime, etc.; (6) on the sweetening properties of fixed air. London, 1773, pp. xv. and 142.

A letter to Dr. Glass containing a reply to his examination of Mr. Henry's strictures on the magnesia sold under the name of the late Mr. Glass. London, 1774. Pp. 31.

An account of the medical virtues of magnesia alba, more particularly of calcined magnesia, with plain directions for the use of them, etc. London, 1775. Pp. v. and 1,063.

Memoirs of Albert de Haller, M.D. Warrington, 1783. Pp. xvii. and 161.

In the *Phil. Trans.* of the Royal Society. Vol. 68, p. 221.

An account of the earthquake felt at Manchester and other places. April 14th, 1777.

Memoirs of the Manchester Lit. and Phil. Soc.:—

An essay on the advantages of literature and philosophy in general, and especially on the consistency of literary and philosophical with commercial pursuits. Vol. 1, p. 7. Read October 3, 1781.

On the preservation of sea water from putrefaction by means of quicklime. Ibid., p. 41. Read November 21, 1781.

On the natural history and origin of magnesian earth, particularly as connected with those of sea salt and of nitre, with observations on some chemical properties of that earth which have been hitherto unknown or undetermined. Ibid., p. 48.

Experiments on ferments and fermentation, by which a mode of exciting fermentation in malt liquors, without the aid of yeast, is pointed out, with an attempt to form a new theory of that process. Vol. 2, p. 273. Read April 20, 1785.

Observations on the influence of fixed air on vegetation, and on the probable cause of the difference in the results of various experiments made for that purpose. Ibid., p. 357. Read May 14, 1784.

Observations on the bills of mortality for the towns of Manchester and Salford. Vol. 3, p. 159. Read January 18, 1786.

Case of a person becoming short sighted in advanced age. Ibid., p. 182. Read November 29, 1786.

Considerations relative to the nature of wool, silk and cotton as objects of the art of dying, on various preparations and mordants requisite for these different substances, and on the nature and properties of colouring matter. Together with some observations on the theory of dying in general, and particularly the turkey red. Ibid., p. 343. Read December 20, 1786.

Remarks on Mr. Nicholson's account of the effects produced at Swinton by a stroke of lightning. Vol. 2 New Series, p. 250. Read October 20, 1809.

Memoirs of the late Charles White, F.R.S., chiefly with a reference to his professional life and writings. Vol. 3 New Series, p. 33. Read April 2, 1813.

Med. and Phys. Journ. Vol. 2, 1799, p. 102:—

On the digitalis and frictions with opium.

London Med. Journ.:—

Medicinal effects of magnetism. Vol. 3, p. 303.

Experiments on latent heat. Vol. 5, p. 89.

Memoirs of the Med. Soc. of London. Vol. 1, 1792, p. 294:—

A case of head-ache attended with uncommon symptoms. Read May 10, 1779.

THOMAS PERCIVAL.

Percival's writings were collected and published together in one edition by his son, Edward Percival, M.D., in 1807, the title being The works, literary, moral and medical of Thomas Percival, M.D., to which are prefixed memoirs of his life and writings, and a selection from his literary correspondence.

Vol. 1. Biographical notice of Dr. Percival, a selection from his correspondence, and a Father's instructions.

Vol. 2. Moral and literary dissertations, chiefly intended as the sequel to a Father's instructions; an article on taxation; a biographical notice of T. B. Bayley, Esq.; dissertatio medica inauguralis de Frigore; Medical Ethics, or a code of institutes and precepts, adapted to the professional conduct of physicians and surgeons—(1) In hospital practice, (2) in private or general practice, (3) in relation to apothecaries, (4) in cases which may require a knowledge of law. To which is added an appendix, containing a discourse on hospital duties; also notes and illustrations.

Vol. 3. Essays, literary, moral and medical.

Part 1. The empiric, or man of experience; the dogmatic or rational; experiments and observations on astringents and bitters; on the uses and operation of blisters; an inquiry into the resemblance between chyle and milk; experiments and observations on water, particularly the hard pump water of Manchester; on the disadvantages of inoculating children in early infancy; on the efficacy of external applications in the angina maligna, or ulcerous sore throat.

Part 2. Observations and experiments on the columbo root; on the preparation, culture and use of the orchis root; experiments and observations on the waters of Buxton and Matlock; observations on the medicinal uses of fixed air; on the antiseptic and sweetening powers, and on varieties of factitious air; on the noxious vapours of charcoal; on the atrabilis; on the septic quality of sea salt; on coffee.

Select histories of diseases, with remarks:—(1) The history and cure of a difficulty in deglutition, arising from a spasmodic affection of the œsophagus; (2) cases of dropsies; (3) case of a palsy, from the effluvia of lead, cured by electricity; (4) cases of obstinate colics, cured by the use of alum; (5) cases in which the warm bath was successfully employed; (6) miscellaneous cases and observations. Proposals for establishing more accurate and comprehensive bills of mortality in Manchester; plan of bills of mortality by the Rev. Mr. Dade, of York; observations and experiments on the poison of lead.

Vol. 4. Essays, medical, philosophical and experimental.

Part 3. Observations on the state of population in Manchester and other adjacent places; on the smallpox and measles; on the different quantities of rain, which fall at different heights over the same spot of ground; on the solution of human calculi by fixed air; on the nature and composition of primary calculi; on the effects of fixed air on the colours and vegetation of plants; on the action of different manures; on different absorbants; on the internal regulation of hospitals; miscellaneous observations, cases and inquiries—(1) Fatal effects of yew leaves; (2) an extra-uterine fœtus, voided by stool; (3) the rarity of the air a cause of hæmorrhages; (4) electricity; (5) a poisonous species of mushroom; (6) worms discharged from the lungs; (7) miliary fever; (8) angina pectoris; (9) typhus; (10) apoplexy; (11) solution of water in air; (12) affections of the eyes; (13) asylum or lock hospital.

Part 4. On a new and cheap method of preparing potash; on the fatal effects of pickles impregnated with copper; speculations on the perceptive power of vegetables; facts and queries relative to attraction and repulsion; narrative of the sufferings of a collier, with observations on the effects of famine; a physical inquiry into the powers and operations of medicines; on the solvent powers of camphor, etc.; medical cautions and remarks, particularly relative to pulmonary disorders; on the medicinal uses of cod liver oil; on the nature, cause, and cure of the rabies canina; miscellaneous facts and observations—(1) Retrograde motion of the lymphatics; (2) reciprocal sympathy between the stomach and the lungs; (3) dysury; miscellaneous practical observations—(1) Flowers of zinc; (2) colic; (3) hydrocephalus internus; on the acid of tar; on the construction and polity of prisons; remarks relative to the improvement of the Manchester Infirmary, and one or two others not of medical interest.

JOHN WRIGHT.

An appeal to the public, 1782.

An address to the members of both Houses of Parliament on the tax laid on fustian and other cotton goods; setting forth that it is both reasonable and necessary to annul this impost. Also that it may be both politic and wise to have every species of manufacture

and commerce free from every restraint or tax whatever, particularly from excise laws. To which is annexed a few strictures on separate clauses of the same Act of Parliament. Warrington, 1785.

An essay on wines, especially on port wine; intended to instruct every person to distinguish that which is pure, and to guard against the frauds of adulteration; also to indicate when and how it may be useful or injurious in health or disease. London, 1795.

ALEXANDER EASON.

Med. Commentaries, Edinburgh:—

An account of an imperforate hymen. Vol. 2, 1774, p. 187.

An account of the effects of lightning in curing tumour of the breast. Vol. 4, 1776, p. 82.

Effects of electricity in removing a contraction of the fingers. Vol. 5, 1777, p. 83.

A case of hydrocephalus successfully treated by mercury. Vol. 8, 1781, p. 325.

JOHN LATHAM.

A plan of a Charitable Institution, intended to be established upon the sea coast, for the accommodation of persons affected with such diseases as are usually relieved by sea-bathing. London, 1791.

Oratio anniversaria in theatro Collegii Regii Medici Londinensis ex Harveii instituto habita, October 18, 1794. London, 1795.

A letter addressed to Sir George Baker, Bart., on rheumatism and gout. London, 1796.

The pharmacopœia of the Royal College of Physicians; translated into English by T. L. Healde. London, 1805.

In the *Phil. Trans.*:—

On a singular separation of the cuticle in a fever, with an account of a very small fœtus brought into the world at the same time with a live child at its full growth. 1770, p. 451.

An account of an extraordinary dropsical case. 1779, p. 54.

In the *Trans. of the Soc. for the Encouragement of Arts*:—

On English opium, 1796. Vol. 14, p. 267.

In the *Trans. of the Linn. Soc.*:—

Essay on the tracheæ or windpipes of various kinds of birds, 1797. Vol. 4, p. 90.

In the *Trans. of the Coll. of Phys. in London*:—

On cases of tetanus in consequence of wounds; evincing the utility of relaxant medicines and more particularly of the pulvis ipec. co. in large and repeated doses, 1813. Vol. 4, pp. 22 and 174.

Remarks on tumours which have occasionally been mistaken for diseases of the liver. Ibid., p. 47.

Observations on certain symptoms usually, but not always, denoting angina pectoris. Ibid., p. 278.

An abdominal tumour originating in lumbar abscess. Ibid., p. 329.

Case of intestinal protrusion *per anum*. Ibid., p. 343.

Observations on the nature and treatment of leucorrhœa, 1815. Vol. 5, p. 23.

Some observations respecting the medicines usually given in worm cases, with remarks upon the collateral advantages sometimes derived from them in cases of epilepsy. Ibid., p. 52.

On cachexia aphthosa. Ibid., p. 57.

Observations respecting the safety and efficacy of the internal use of superacetate of lead in pulmonary consumption. Ibid., p. 340.

On the medicinal properties of the *solanum tuberosum* or potato plant, 1820. Vol. 6, p. 92.

On the employment of venesection in cases of sudden seizures, commonly called fits. Ibid., p. 248.

In the *London Med. Gaz.*:—

Observations on clinical medicine, 1832. Vol. 11, p. 103.

On some subjects collateral to clinical medicine, 1832. Vol. 11, pp. 199 and 583.

Concerning the duration of fevers. Vol. 12, 418.

In *The Lancet*:—

Cases of fever, 1833, p. 543.

JOHN FERRIAR.

In the *Memoirs* of the Lit. and Phil. Soc.:—

Of popular illusions and particularly of medical demonology. Read 1786. Vol. 3, p. 23.

Essay on the dramatic writings of Massinger. Read 1786. Vol. 3, p. 123.

Observations concerning the vital principle. Read 1787. Vol. 3, p. 216.

An account of an ancient monument in Hulne Abbey, Northumberland. Read 1788. Vol. 3, p. 302.

An argument against the doctrine of materialism. Read 1790. Vol. 4, p. 20.

Comments on Sterne. Read 1791. Vol. 4, p. 45. Afterwards enlarged twice and published separately in 1798 and 1812, with the title Illustrations of Sterne; with other Essays and Verses.

On the use of the ancient terraced works on Orton Scar, near Brederdale. Illustration in sepia drawn by Ferriar. Read 1792. Vol. 4, p. 422.

The Puppet Show: A didactic poem partly translated from Addison's Machinæ Gesticulantes. 1788.

The Prince of Angola; a tragedy altered from the play of Oroonoko and adapted to the circumstances of the present times. 1788.

Medical Essays. Vol. 1. Printed in Warrington, 1792.

An essay on the medical properties of the *digitalis purpurea* or foxglove. 8vo, pp. iv. and 66, 1799.

The Bibliomania: A satire on the collecting of scarce books and particular editions, 1809. This suggested to Dibdin his Bibliomania.

An essay towards a theory of apparitions, 1813.

Medical histories and reflections, 1810. 2nd edition.

Vol. 1. Singular paralytic affection; An uncommon spasmodic case successfully treated; Remedies of dropsy; Uva ursi; Hysteria; Diabetes; Epidemic fever of 1789 and 1790; Dilatation of the heart; Muriated barytes; Remedies of insanity; Liniment for the lumbago; Efforts of digitalis in active hæmorrhage; Hydrophobia; Origin of Contagious and new diseases.

Vol. 2. Conversion of diseases of insanity; Remedies of dropsy; Prevention of fevers; Dilatation of the heart; Efforts of pneumatic medicine; Essay on the medical properties of *digitalis purpurea*.

Vol. 3. Rabies canina; Account of the establishment of fever wards in Manchester; An affection of the lymphatic vessels, hitherto misunderstood; Of the croup; Of the whooping cough; of the use of the nitrous acid in syphilis and some other diseases; Of the treatment of the dying; Advice to the poor; Additional note respecting the treatment of fever.

Vol. 4. Observations on the treatment of dropsy; Of diabetes; Case of scirrhus of the pylorus.

Illustrations of Sterne, with additional notes. Editions in 1798 and 1812. Also contains the following essays:—

Of certain varieties of man; Menippean essay on English historians; On the origin of the modern art of fortification; The puppet show—a didactic poem partly translated from Addison's *Machinæ Gesticulantes;* Of genius; Dialogue in the shades; The Bibliomania, an epistle; A northern prospect, an ode.

GEORGE BEW.

London Med. Journ.:—

Case of a student who swallowed a golden breast-pin four inches in length, and voided it by stool without any ill consequences. Vol. 4, 1783, p. 77.

On the epidemic catarrh of the year 1288. Vol. 11, 1790, p. 10.

Experiments in latent heat. Vol. 5, 1784, p. 205.

Memoirs of Lit. and Phil. Soc.:—

Observations on blindness and on the employment of the other senses to supply the loss of sight. Vol. 1, p. 168.

Massachussets Mag.:—

An account of Henry Moyes, the blind philosopher, 1791, p. 99.

SAMUEL ARGENT BARDSLEY.

Medical reports of cases and experiments with observations chiefly

derived from hospital practice, to which are added an inquiry into the origin of canine madness and thoughts on a plan for its extirpation from the British Isles. London, 1807.

Memoirs of Lit. and Phil. Soc.:—

Miscellaneous observations on canine and spontaneous hydrophobia, to which is prefixed the history of a case of hydrophobia occurring twelve years after the bite of a supposed mad dog. 1st Series, Vol. 4, 1790, p. 431.

On the use and abuse of popular sports and exercises resembling those of the Greeks and Romans as a national object, 1805. 2nd series, Vol. 1, p. 164.

Cursory remarks, moral and political, on party prejudice, 1798. 1st series, Vol. 5, p. 1.

Some critical remarks on the tragedy of Pizarro, with observations on the subject of the drama, 1800.

Memoirs of Med. Soc. of London:—

Answer to the queries of the Medical Society of London on the late (1803) epidemical disorder commonly termed the influenza. Vol. 6, 1805, p. 350.

WILLIAM SIMMONS.

Reflections on the propriety of performing the Cæsarean operation; to which are added observations on cancer and experiments on the supposed origin of cow-pox. London, 1798.

A detection of the fallacy of Dr. Hull's defence of the Cæsarean operation. Manchester, 1798.

Cases and observations on lithotomy; including hints for the more ready and safe performance of the operation, to which are added observations on the chimney-sweeper's cancer and other miscellaneous remarks. Manchester, 1808.

Small pamphlet: Cases and observations on lithotomy, including hints for the more ready and safe performance of the operation; to which are added observations on the chimney-sweeper's cancer and other miscellaneous remarks, 1808.

In the *Edinburgh Annals of Med.*:—

Observations on Mr. Baynton's method of treating ulcers of the legs. Vol. 2, 1798, p. 339.

Account of the benefit derived from the use of arsenic in the hooping cough. Ibid., p. 393.

In Simmons's (S. F.), *Medical Facts and Observations*, London:—

Cases and remarks on the external application of charcoal. Vol. 7, 1797, p. 77.

Description of an improved screw tourniquet. Vol. 8, 1800, p. 19.

Two cases of the successful termination of wounds of the internal jugular vein and the uterus, hitherto deemed mortal, with observations. Vol. 8, 1800, p. 23.

In the *London Med. and Phys. Journ.*:—

Remarks on Mr. White's treatment of sphacelus. Vol. 2, p. 13.

Description of a fœtus born without brain and spinal marrow. Vol. 4, p. 190.

Case of enlarged clitoris. Vol. 5, p. 1.

The employment of *digitalis purpurea* in many surgical cases. Vol. 5, p. 133.

On the efficacy of arsenic in the treatment of cancer. Vol. 5, p. 251; Vol. 6, p. 31; Vol. 28, p. 118.

Observations on cow-pox. Vol. 5, p. 134.

On scrofula, with remarks on the doubtful efficacy of muriate of lime in that disease. Vol. 7, p. 58.

On the efficacy of the tincture of tobacco in gleet. Ibid., p. 57.

On the efficacy of soda employed externally and internally in some severe ulcers. Vol. 9, p. 267.

Case of abscess of the liver. Vol. 10, p. 1.

Observations on the incontraction of an artery. Ibid., p. 2.

Case of strangulated hernia during pregnancy. Ibid., p. 4.

Case of wound of the trachea. Ibid., p. 5.

Apology for the cutting gorget. Vol. 22, p. 339; Vol. 23, p. 238.

Observations on the medicinal use of the spider's web. Vol. 22, p. 457.

Observations on select subjects in surgery. Vol. 9, p. 197; Vol. 13, pp. 7, 97, 293, 385, 387; Vol. 14, pp. 103, 481–6; Vol. 16, pp. 1–7.

These observations are short notes of half to one page on the following subjects:—Gutta serena, impervious funis umbilicalis, concussion and contusion of the brain, certain animal concretions, polypus of the nose, a case of premature delivery, tinea capitis, amputations with a description of new instruments, scirrhus of the testicle, steatoma, hydrocele, sarco-epiplocele, sarcoma adiposum, etc., etc.

In the *London Med. Rev. and Mag.*, 1800. Vol. 4, p. 96:—

An inquiry whether or not erysipelas be an infective disease.

In the *Edinburgh Med. and Surg. Journ.*:—

A case of purulent ophthalmia. Vol. 5, p. 283.

On the use of the gorget. Vol. 7, p. 492.

On an anomaly in vaccination. Vol. 8, p. 156.

On the utility of diuretics in ulcers situated on the lower extremities. Ibid., p. 158.

On the property of iron in cancer. Ibid., p. 159.

On the property of arsenic in cancer. Ibid., p. 158.

A case of occult cancer. Ibid., p. 160.

On the liquor ferri alkalini in scrofula. Ibid., p. 160.

Apology for the cutting gorget. Vol. 5, p. 326; Vol. 6, p. 61.

In Ferriar's *Med. Hist. and Reflections*:—

Observations on the use of digitalis in lumbar abscess. Vol. 2. Appendix.

On the use of kali purum as a caustic in hydrophobia. Vol. 3, p. 292.

On the use of the nitric acid in the *lues venerea*. Vol. 3, p. 295.

MICHAEL WARD.

Facts establishing the efficacy of the opiate friction in spasmodic and febrile diseases; also outlines of a plan to investigate the nature, causes, and method of cure of hydrophobia and tetanus. Mostly reprinted from the *Med. and Phys. Journ.* of 1799. 1809.

A new method of treating burns and scalds and certain cutaneous eruptions, 1829.

London Med. and Phys. Journ.:—

Observations in the use of opium. Vol. 1, p. 441; Vol. 2, p. 6; Vol. 6, pp. 478, 479; Vol. 7, pp. 124, 342, 357, 497; Vol. 8, pp. 325, 333, 340, 389; Vol. 9, pp. 40, 153, 335; Vol. 11, pp. 111, 538; Vol. 14, pp. 353, 457; Vol. 18, pp. 258.

Cases of vaccination accompanied by some remarkable circumstances. Vol. 2, p. 134.

Observations on the treatment of hernia with cases. Vol. 4, p. 36.

History of a case of cancer. Vol. 10, p. 448.

Observations on the analogy between hydrophobia and tetanus. Vol. 11, p. 540; Vol. 23, pp. 149.

BENJAMIN GIBSON.

Memoirs of Lit. and Phil. Soc.:—

Observations on the effect of madder root on the bones of animals. 2nd series, Vol. 1, p. 146.

On the use of sutures in the skulls of animals. Ibid., p. 317.

Edinburgh Med. and Surg. Journ.:—

On the common cause of the puriform ophthalmia of new-born children. Vol. 3, 1807, p. 159.

On the use of the couching-needle in infants of a few months old. Vol. 3, 1811.

Instructions for the application of the tourniquet, chiefly intended for military use. Manchester, 1803.

Practical observations on the formation of an artificial pupil in several deranged states of the eye, to which are annexed remarks on the extraction of the soft cataract and those of the membranous kind through a puncture in the cornea. London, 1811.

HENRY DEWAR.

Observations on diarrhœa and dysentery, as those diseases appeared in the British Army during the campaign in Egypt in 1801; to which is prefixed a description of the climate of Egypt and a sketch of the medical history of the campaign. London, 1803, pp. 101.

Memoirs of Lit. and Phil. Soc.:—

An inquiry into the principles by which the importance of foreign commerce ought to be estimated, 1813. 2nd series, Vol. 2, p. 45. Read 1808. Appendix read October, 1811.

A letter to John Boggie, Esq., surgeon on the staff at Brussels, on a particular sort of gun-shot wound. Edinburgh, 1815, pp. 7.

A letter to Thomas Trotter, M.D., occasioned by his proposal for destroying the fire and choke damps in coal mines; containing chemical and general strictures on that work. Manchester.

Account of an epidemic of small-pox, which occurred at Cupar, in Fife, in the spring of 1817, and the degree of protecting influence which vaccination afforded; accompanied with practical inferences and observations. Cupar, 1817, pp. 38.

Remarks on the propriety and safety of negotiating peace with France, 1808.

Transactions of Royal Soc. of Edinburgh:—

Observations on the theory of language. Vol. 7, 1815, p. 387.

On the education of James Mitchell, the young man born blind and deaf. Vol. 8, 1817, p. 137.

London Med. and Chir. Trans.:—

On the treatment of sinuous ulcers. Vol. 7, 1816, p. 482.

Thomson's Annals of Philosophy:—

Method of preserving volatile and deliquescent substances. Vol. 10, 1817, p. 29.

Edinburgh Med. and Surg. Journ.:—

Remarks on the preservation of lime-water. Vol. 13, 1817, p. 195.

Reply to Mr. Brown. Vol. 15, 1819, p. 373.

The influence of chemical law on the phenomena of physiology. Vol. 17, 1821, p. 479.

PETER MARK ROGET.

Animal and vegetable physiology, considered with reference to natural theology; being No. 5 of the Bridgewater Treatises. 2 vols. 8vo. 1st edition May 1, 1834.

Thesaurus of English words and phrases, classified and arranged so as to facilitate the expression of ideas and assist in literary composition. 8vo. The 1st edition was published in 1852. From that to the present time the work has been issued in rapidly succeeding editions. In 1879, some years after Dr. Roget's death, it was improved, under the editorship of his son, by embodying the author's MSS. additions to the text, and by the substitution of a new and more copious index.

In *Encyclopædia Britannica*:—

The articles Ant, Apiary, Barthez, Beddoes, Bee, Bichart, Brocklesby, Broussonet, Camper, Cranioscopy, Currie, Deaf and Dumb, Kaleidoscope, Physiology. Supplement to 6th edition.

The articles Banks (Sir Joseph), Phrenology, 1838. 7th edition.

The articles Physiology and Phrenology were also published separately in two small 8vo volumes.

In *Encyclopædia Metropolitana*:—

The article Galvanism.

In *Rees's Encyclopædia*:—

The articles Sweating sickness, Symptom, Synocha, Synochus, Tabes, Tetanus.

In *Encyclopædia of Practical Medicine*:—

The articles Age and Asphyxia, 1832. These articles were also printed separately as pamphlets, 8vo.

In *Philosophical Transactions*:—

Description of a new instrument for performing mechanically the involution and evolution of numbers, 1815, p. 9. The paper was read November 17, 1814. It was republished in 1828 as an 8vo pamphlet entitled Description of the new sliding rule of involution invented by Dr. Roget, Sec., R.S., with instructions for using it.

Explanation of an optical deception in the appearance of spokes of a wheel seen through vertical apertures, 1825. The paper was read December 9, 1824.

In *Med.-Chir. Soc. Trans.*:—

A case of recovery from the effects of arsenic, 1811. Vol. 2, p. 136; Vol. 3, p. 342. The paper was read on May 7 and published separately in an 8vo pamphlet of 25 pages.

On a change in the colour of skin produced by the internal use of nitrate of silver, 1815. Vol. 7, p. 290.

In *Journ. of the Royal Institution*:—

On the geometrical properties of the magnetic curve, with an account of an instrument for its mechanical description, February, 1831. Vol. 1, p. 311.

For the *Society for the Diffusion of Useful Knowledge*:—

Treatises on Electricity, Galvanism, Magnetism and Electro-magnetism, 1827–1831. 8vo.

In *Annals of Philosophy*:—

On the kaleidoscope, April 3, 1818. Vol. 11, p. 375.

Observations on Mr. Perkins's account of the compressibility of water, January 25, 1821. New series, Vol. 1, p. 135.

In *Annals of Biography and Obituary* for 1823:—

Memoir of Dr. Alexander Marcet.

In *Scientific Gazette*:—

On an apparent violation of the law of continuity, 1825. November 5 and 12, pp. 259 and 277.

In *London Med. Gaz.*:—

Abstract of Dr. Roget's Gulstonian Lectures on the Laws of sensation and perception. The lectures were read at the Royal College of Physicians on May 2, 4 and 9, 1832.

In the *London and Edinburgh Phil. Mag. and Journ. of Sci.*:—

On the knight's move at chess. Description of a method of moving the knight over every square of the chess-board without

going twice over any one, commencing at any given square, and ending at any other given square of a different colour. March 20, 1840. Vol. 16, Article 51. Also printed separately as a pamphlet.

In *Edinburgh Rev.*:—

On P. Huber's Recherches sur les mœurs des fourmis indigènes, 1812. Vol. 20, p. 416.

On P. Huber's Nouvelles observations sur les abeilles, 1815. Vol. 25, p. 363.

In *Quarterly Rev.*:—

Electro-magnetism, being a review of Ampère's Recueil d'observations electro-dynamiques and Barlow's Essay on magnetic attractions, 1826.

In *Parliamentary Rev.*:—

Public health—Quarantine laws, 1826, pp. 785 to 804.

Public health—Pauper lunatics, 1828, pp. 265 to 298.

Report to the House of Commons (in conjunction with Dr. Latham):—

On an epidemic dysentery among the prisoners at Millbank Penitentiary, 1824.

Report to the House of Commons (in conjunction with Telford and Brande):—

On the supply of water to the Metropolis, 1828.

Thesis for Degree of M.D. at the University of Edinburgh:—

Testamen physicum inaugurale, de chemicæ affinitatis legibus, 1798. 8vo, 69 pages.

Letter on non-prevalence of consumption among butchers, fishermen, etc., 1798. Published in Dr. Beddoes's essay On the causes, etc., of pulmonary consumption, 1799.

On the effects of respiration of nitrous oxide, 1799. In a letter to Sir Humphrey Davy, published in his *Researches*, 1800.

Syllabus of a course of lectures on anatomy and physiology, by P. Roget, M.D., B. Gibson, and J. Hutchinson. Manchester, November 27, 1805. 30 pages, foolscap 8vo.

Syllabus of a course of lectures on animal physiology, with a table of the classification of animals, by P. Roget, M.D. Manchester, 1807. 13 pages, foolscap 8vo.

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